

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

IN RE: PROCESSED EGG PRODUCTS: MDL NO. 2002
ANTITRUST LITIGATION 08-MDL-02002

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PHILADELPHIA, PA

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NOVEMBER 25, 2019

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BEFORE: THE HONORABLE GENE E.K. PRATTER, J.

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TRANSCRIPT OF TRIAL PROCEEDINGS

DAY 16

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(Transcript produced by mechanical shorthand via C.A.T.)

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1 Plaintiffs' Exhibit 497 against the USEM only.

2 And last, Your Honor, Plaintiffs offer Plaintiffs'
3 Exhibit 53 against all parties.

4 Your Honor, I'm sorry, I missed one and I'm
5 reminded. Plaintiffs offer Exhibit 101 against the USEM only.
6 Thank you, Your Honor.

7 THE COURT: Thank you.

8 And next, please?

9 MR. BLECHMAN: Your Honor, subject to agreement with
10 Defense Counsel to our calling Professor Baye, Monday after
11 Thanksgiving, subject to that agreement with counsel on the
12 other side, Plaintiffs rest.

13 THE COURT: Okay, so what that means, folks, is that
14 because of scheduling issues, there is one additional
15 Plaintiffs' witness who will be coming next week. But other
16 than that, the Plaintiff has rested, meaning they are done
17 with presenting their direct case subject to calling this
18 other witness.

19 Which of the Defendants wishes to proceed?

20 MS. SUMNER: We do, Your Honor. We'd like to call
21 Dr. Jeffrey Armstrong at this time.

22 THE COURT: Very well.

23 THE DEPUTY CLERK: Please remain standing and raise
24 your right hand.

25 (Witness sworn.)

1 JEFFREY ARMSTRONG, MD,

2 Called as a witness herein by the Defendants, having been
3 first duly sworn, was examined and testified as follows:

4 THE WITNESS: I do.

5 THE DEPUTY CLERK: Would you please have a seat.
6 Please state your full name and spell your last name for the
7 record.

8 THE WITNESS: Jeffrey D Armstrong,
9 A-R-M-S-T-R-O-N-G.

10 THE COURT: Good morning, Mr. -- Dr. Armstrong, how
11 are you today?

12 THE WITNESS: Good morning, Judge, I'm doing well.
13 How are you?

14 THE COURT: Did you have a nice weekend?

15 THE WITNESS: I did.

16 THE COURT: Okay. So here you are, make yourself
17 comfortable, keep your voice up so everybody can hear you.

18 And, Ms. Sumner, you may proceed.

19 MS. SUMNER: Thank you, Your Honor.

20 DIRECT EXAMINATION

21 BY MS. SUMNER:

22 Q. Good morning, Dr. Armstrong.

23 A. Good morning.

24 Q. The jury has heard at this point a lot about the United
25 Egg Producers' Certified Program and they've heard a little

1 bit about you. Could you please tell the jury this morning
2 what was your involvement with the development of the UEP
3 Certified Program.

4 A. In 1997, I moved to Purdue University as head of the
5 Department of Animal Science, so I got to know the egg
6 industry in Indiana. And then in 1998, after some meetings,
7 they asked me to constitute and chair the Scientific Committee
8 on Animal Welfare.

9 Q. And what was the Scientific Advisory Committee on Animal
10 Welfare?

11 A. This was a group of scientists, also other individuals,
12 that were charged with evaluating the current science, what
13 does science say how we should treat hens in cages or various
14 other types of housing situations.

15 Q. And when was that Scientific Advisory Committee formed?

16 A. It was formed in 1998.

17 Q. Before we get into your work on the Scientific Advisory
18 Committee, I would like the jury to hear a little bit about
19 your background. What do you do professionally today,
20 Dr. Armstrong?

21 A. Today, I'm president of California Polytechnic State
22 University. It's in San Luis Obispo, California, halfway
23 between San Francisco and Los Angeles.

24 Q. Could you describe for the jury a little bit about what
25 you do as president of Cal Poly?

1 A. We have around 21,500 students, all undergraduate and
2 master's, so I'm responsible for the vision, leadership, and
3 education of all of those students. It involves being on
4 campus, attending events, working with students, working with
5 the system. We're part of California State University system,
6 23 campuses, 480,000 students. And I'm also involved with
7 fundraising and working with alumni and typical things that
8 University presidents do. I enjoy it.

9 Q. How long have you been the president of Cal Poly?

10 A. In my ninth year.

11 Q. And what did you do professionally prior to assuming the
12 position as president of Cal Poly?

13 A. From -- from 2001 to 2011, I was Dean of Agriculture and
14 Natural Resources at Michigan State University. Prior to
15 that, I was head of animal sciences at Purdue University from
16 1997 until 2001, and then from 1981 to 1997 I was grad student
17 assistant associate full professor at North Carolina State
18 University at College of Ag and Life Sciences.

19 Q. Prior to becoming the president of Cal Poly, were you
20 involved in academic research and teaching?

21 A. Yes.

22 Q. And can you describe what you did in that position for
23 the jury, please?

24 A. My Master's in PhD work involved pigs, different aspects
25 of lactation, nutrition, and reproduction interactions, trying

1 to help producers do a better job. I was also involved
2 working with beef cattle, again, with nutrition and
3 reproduction, worked with beef cattle producers in North
4 Carolina. And then as head of animal science at Purdue I
5 switched more into really being involved in social
6 responsibility in the food system. That really first started
7 with environmental issues with pigs and hog lagoons, how they
8 handle the waste, in North Carolina in the '80s and '90s, and
9 then animal welfare was really starting to take off in the
10 early '90s as a big issue for animal agriculture.

11 Q. And can you explain to the jury, please, how you got
12 involved in animal science?

13 A. Well, I grew up on a farm in Kentucky. My older brother
14 and I were the first in our family to go to college. And I
15 wanted to either be a veterinarian or an ag teacher. I was in
16 the FFA and I ended up going to Murray State in Western
17 Kentucky, it was close to home, and I got excited about
18 reproductive physiology of animals through a course I took at
19 Murray State, and then I ended up at graduate school at North
20 Carolina State.

21 Q. And can you explain to the jury briefly what reproductive
22 physiology is?

23 A. Physiology is just how the Mammalia or any system works.
24 And so reproduction is, you know, the male and the female
25 reproduction. And from a farm animal perspective and from a

1 producer consumer perspective, you want that to be efficient,
2 to keep the costs of food as low as possible, because we, you
3 know, we -- we're part of the food chain and we depend on
4 plants and animals and we need that to be as efficient as
5 possible.

6 Q. How did you come to lead the Scientific Advisory
7 Committee for Animal Welfare?

8 A. So in 1997, July 1 of 1997, I started at Purdue, and I
9 traveled around the state to get to know the beef cattle
10 industry in the southern part, and then egg production was
11 really all over the state, and Indiana had a very vibrant egg
12 production industry. So I met a lot of the different
13 producers, got to know them, asked them what the issues were.
14 Purdue at the time had a USDA group working in animal welfare
15 and it was a very new science compared to nutrition or
16 reproduction or other aspects or veterinary medicine --
17 welfare, animal behavior was new. A lot of scientists at the
18 time actually didn't think it was a real science. But animal
19 welfare was an increasingly important issue and it was driven
20 largely by animal activists, animal rights activists that did
21 not want us to consume animals at all, or at least house them
22 in confinement. It was all driven by the food industry.
23 McDonald's was one of the leaders in really pushing that
24 forward, but they were, like a lot of the food industry, the
25 animal rights activists caught them a bit off guard.

1 Q. At some point did UEP approach you about chairing the
2 Scientific Advisory Committee?

3 A. Yes, actually the first thing that happened -- there was
4 a meeting in late '97 or early '98, I can't recall, in which
5 the -- Al Pope and Gene Gregory asked to just come and meet
6 with us. There were a couple producers. I asked Joy Mench
7 from UC Davis to join us, I believe, as well as Scotti or
8 Patricia Hester is her -- not her nickname -- to join us and
9 we just had a discussion about the current state of animal
10 welfare and we looked at their guidelines and we said,
11 basically, you do not have science-based guidelines. You've
12 just recorded how you do business, you've just recorded best
13 practices, and it's really not science-based.

14 A few months after that, I got a call from Al Pope
15 asking if I would constitute and chair a committee to look at
16 science-based animal welfare for the laying hen industry.

17 Q. Did you have an understanding at that time as to why UEP
18 asked for science-based guidelines?

19 A. It's the tail end of a cold. I'm sorry.

20 Q. That's okay.

21 A. It's the good end of the cold. And I almost spilled
22 water all over myself.

23 They were being really hit hard. It was -- the
24 Internet had been invented by that time and they were being
25 hit hard with animal rights activists, and in particular one

1 group, Compassion Over Killing, and there were a lot of
2 pictures of laying hens in cages, crammed together, no
3 feathers, looked really bad, and that's the same type of thing
4 that was hitting the food industry.

5 In the egg industry was one of the first areas,
6 other than the slaughter -- I don't know how -- a better way
7 to put it other than the harvesting industry or the
8 slaughterhouse industry had actually been pushed first, and
9 change was needed.

10 Q. What made you accept the appointment as chair of the
11 Scientific Advisory Committee?

12 A. Well, first of all, I believed they were sincere and I
13 consulted with some scientists that I trusted, Scotti Hester
14 at Purdue, Joy Mench at UC Davis, who's probably one of the,
15 in our generation, the expert in hen welfare, hen behavior,
16 and I felt they were serious. I had been involved with some
17 other interactions with the pork industry, and they were not
18 serious about it. They were more -- they were gearing their
19 efforts really more -- I don't think intentionally, but they
20 were gearing their efforts more to maintaining the status quo,
21 and it was clear the status quo was not going to be
22 maintained. It was just a matter of how that was going to
23 change.

24 Q. At this time, were there other companies that had begun
25 addressing animal welfare issues?

1 A. Yes, McDonald's was one of the first. In fact, I worked
2 a lot with Bob Langert, and he has since written a book about
3 his efforts in sustainability, and he basically chronicles
4 that in the '80s, McDonald's was taken a bit off guard with
5 the push. They worked with Temple Grandin. Temple Grandin is
6 an individual well known for her work in behavior. She has a
7 PhD and she also has autism, and so Temple worked with
8 McDonald's. I also served on the McDonald's welfare panel
9 with her and she helped McDonald's put pressure on the
10 slaughterhouses to make sure that, you know, we use the
11 animals, we consume the animals, but to make sure that they
12 were harvested humanely.

13 And Temple really led that effort to push -- I mean,
14 single-handedly made huge changes. And so McDonald's and then
15 FMI, the Food Marketing Institute, the National Council of
16 Chain Restaurants, they were all involved because their
17 constituent members knew this was coming and they were being
18 bombarded with it.

19 Q. Dr. Armstrong, what was the hot issues in animal welfare
20 at this time?

21 A. The hot issues at that time were the slaughter issues,
22 how animals were treated near the end of their life, gestation
23 crates -- pregnancy is another -- gestation's another word for
24 pregnancy. Gestation crates for confined sows, mother of
25 little pigs, and then cages and veal. Veal production.

1 Q. When you formed the Scientific Advisory Committee in
2 1999, what was the state of animal welfare science, generally?

3 A. When I arrived at Purdue in 1997, there had been an
4 individual there many years, Jack Albright, and he was the
5 only one in the department of over 50 that was an ethologist.
6 And ethologist is another name for animal welfare person, and
7 there were very few people in the United States working in
8 animal behavior. There were more in Canada and more in the
9 European Union. So it was very -- in some ways, it was new as
10 being applied to commercial production, especially in the U.S.
11 So -- and it wasn't as well respected as it is today.

12 Q. And at that time, was there a demand for animal
13 science -- or Animal Welfare Guidelines that were supported by
14 science?

15 A. Yes. As we worked on the guidelines, I was in
16 communication with Bob Langert at McDonald's. They wanted to
17 know what we were learning and then later I was asked and
18 several of our members were asked to serve on their advisory
19 council. The American Humane Association, Adele Douglass,
20 they were working on guidelines for more extensive production.
21 And then FMI and NCCR, they were really pushing for -- one set
22 of guidelines for poultry, one set of guidelines for broilers,
23 one set of guidelines for different areas.

24 Q. What was your impression of what was deriving the demand
25 at that time?

1 A. I think it was driven by a couple of things. First of
2 all, it was being reactionary to activists. And activists
3 play a very important role in society. We have student
4 activists. Activists sometimes -- you know, they make us
5 think about things that we should sooner than we do, but it
6 was really driven by activists. But I also think it was
7 driven by, you know, sometimes people talk about where the
8 puck is going to be, skate to where the puck's going to go.
9 Some people were trying to be proactive and really figure out
10 where consumers are going. Ultimately where are consumers
11 going and do consumers care.

12 Q. You mentioned McDonald's a little bit. At this time, did
13 you have any interaction with customers of animal agricultural
14 products other than McDonald's?

15 A. At the time we started the committee, I had interacted
16 with -- at the time we started the committee just started
17 interacting with McDonald's, had some interactions with a lot
18 of companies, but not much in that topic.

19 Q. So in 1999, Mr. Pope, the president of UEP, asked you to
20 chair the Scientific Advisory Committee for animal welfare.
21 What did you do first?

22 A. Well, I first asked questions and wanted to make sure
23 that they were really serious about change, because it was
24 clear that there were really no science behind the space
25 allowance for the birds, there was really not science

1 around -- it wasn't clear can cages really be the way to raise
2 hens in the future. And I wanted to be clear that, you know,
3 a group of scientists could do their work and be
4 scientifically independent, so to speak.

5 Q. And at some point, did you have to constitute the
6 committee?

7 A. Yes, I did.

8 Q. Okay, and can you explain that process, please, to the
9 jury?

10 A. I consulted with Scotti Hester, Joy Mench, and I also
11 consulted with UEP. You know, I put the committee together
12 but didn't do it in a vacuum, and that's how we arrived at the
13 members.

14 Q. Okay.

15 A. I also brought in Janice Swanson, who was then at Kansas
16 State, into the discussion very early.

17 MS. SUMNER: May I approach the witness, Your Honor?

18 THE COURT: Yes, you may.

19 BY MS. SUMNER:

20 Q. Dr. Armstrong, I've handed you a binder of documents
21 which are tabbed that we're going to refer to today as we go
22 through your testimony. I'd like you to turn to Tab 1 of the
23 binder.

24 And do you recognize this document, Dr. Armstrong?

25 A. Yes.

1 Q. What is this?

2 A. This is a recommendations for UEP Animal Welfare
3 Guidelines September 2000.

4 MS. SUMNER: Your Honor, this document's already
5 been admitted into evidence. May I publish it to the jury?

6 THE COURT: Yes.

7 BY MS. SUMNER:

8 Q. And, Dr. Armstrong, is this a copy of the September 2002
9 recommendations by the Scientific Advisory Committee?

10 A. September 2000.

11 Q. Yes. September 2000?

12 A. Um-hum, yes.

13 Q. And who authored this document?

14 A. The committee and myself.

15 Q. Okay. Could you turn to page 3 of the document, please.
16 And use the Bates numbers that are at the very bottom center
17 of the page.

18 A. Yes.

19 Q. So the one that says PX-52.003 -- and those are the
20 numbers we're going to use this morning as we walk through
21 some documents.

22 Is this an accurate and complete list of the team
23 you initially selected?

24 A. Yes.

25 Q. Can you please explain to the jury why you chose these

1 particular members to be on the Scientific Advisory Committee
2 at the beginning?

3 A. Yes. So Don Bell was the University of California
4 Riverside. He was involved in extension and he knew about as
5 much about commercial egg production as anybody alive at the
6 time. He -- extension works with producers to help them be
7 better and be more efficient. So he was very practically
8 oriented, and he was someone that the UEP had recommended and
9 I agreed. And again, I was consulting with Joy and Janice.

10 And Dr. Bill Chase is a private veterinarian that
11 has worked years with the industry, knew a lot about
12 production and animal health.

13 And then Adele Douglass is Director of the American
14 Humane Association. The American Humane Association is very
15 interested in animal welfare, and so this, I wouldn't consider
16 as an activist group but a group that's very, very concerned
17 about animal welfare. So we wanted a balance of views on the
18 committee.

19 And then Scotti Hester was an animal scientist,
20 poultry scientist at Purdue University, knows a lot about
21 bone, physiology of avian or birds, turkeys, laying hens.

22 Joy Mench, as I mentioned earlier, is an expert in
23 animal behavior especially in laying hens.

24 Dr. Ruth Newberry is a professor at Washington State
25 University. She was very well versed in euthanasia, handling

1 all of the different aspects of animal welfare of laying hens
2 and other species.

3 And then Dr. Larry Stanker was at USDA ARS at the
4 time. Dr. Stanker was someone that I asked USDA for an expert
5 on food safety, the interplay of are eggs going to be safe as
6 a food and how we treat the animals. And unfortunately, he
7 wasn't able -- for some reasons totally independent, he wasn't
8 able to attend that many meetings.

9 And then Dr. Janice Swanson is a well-known expert
10 in animal behavior in a variety of species, and she and Joy
11 and Scotti were the ones that I talked to first.

12 And then support or advisory, Barrie Wilcox, he was
13 the producer representative.

14 And then Gene Gregory at the time was a vice
15 president or executive vice president. I don't recall the
16 title for UEP.

17 Q. And can you explain to the jury what role the two support
18 members associated with UEP had on the Scientific Advisory
19 Committee?

20 A. Yeah. We discussed from the beginning several things
21 that, you know, we're using animals, it's going to impinge on
22 the welfare. We consume them, but we need to make sure that
23 that's appropriate. We also knew as a group of scientists,
24 other than Don Bell and Bill Chase, we were not involved in
25 production, and we felt it was our role to develop

1 science-based guidelines but they had to be practical.

2 So you needed advice from the producers. If we made
3 guidelines that only, you know, reflected 1 percent of
4 250 million hens at the time, it wouldn't be practical and
5 wouldn't really affect welfare. So we were trying to be
6 practical and understand the industry.

7 Q. Did UEP decide who would be on the Scientific Advisory
8 Committee?

9 A. No.

10 Q. Did you ever have to replace members on the committee?

11 A. Yes, we did.

12 Q. And when you did, how did you do that?

13 A. We had a discussion among the group. I would recommend
14 individuals after a discussion or we would just simply say,
15 you know, Adele, Adele Douglass, she left, not for any bad
16 reason, but she moved on to something else. So we had a
17 discussion, let's bring somebody in. So, for example, we
18 brought in Gail Golab from the American Veterinary Medical
19 Association.

20 Q. Was the Scientific Advisory Committee part of UEP?

21 A. No. It was a standing committee, but I would say we were
22 scientifically independent. We all came from different
23 organizations, and especially those of us from universities or
24 USDA, I mean, that's what we do. We interact with industry,
25 we -- we try to solve problems, and that's in effect what

1 we're paid to do at the university in some sense.

2 Q. Did UEP ever recommend or tell the committee what
3 conclusions to reach?

4 A. No.

5 Q. Did UEP review the original Scientific Advisory Committee
6 recommendations before they were finalized?

7 A. Oh, yes. It was an iterative process, and, again, we
8 wanted to make sure it was practical and there would always be
9 back and forth within the committee, but it was really an
10 analysis all the science was accepted.

11 Q. Did UEP comment on the initial recommendations?

12 A. Yes.

13 Q. And were those recommendations modified based on those
14 comments?

15 A. I don't recall, but I can tell you the main scientific
16 recommendations were not modified. The main points, they
17 evolved over time, but the main points were never adjusted to
18 reflect the status quo or what only producers could do.

19 Q. And in your view, did those comments by UEP impact the
20 Scientific Advisory Committee's independence?

21 A. No.

22 Q. Why not?

23 A. Well, if this group we put together ever felt that they
24 were being told what to do, they would have walked. They
25 literally would have quit and would have left us. I

1 personally have left some other efforts with some other groups
2 because I didn't feel like it was meaningful and was going to
3 head in a direction for meaningful change.

4 So these individuals, many of them are still on the
5 committee, they would literally have walked if they felt
6 anyone was trying to tell them what to do based on the
7 science.

8 Q. How much time did you and other members of the Scientific
9 Advisory Committee spend on your work for the Scientific
10 Advisory Committee?

11 A. We met a couple of times a year, but then each member
12 would have assignments. So it's really difficult to say how
13 many hours they put in, but it was quite a bit because each
14 individual reviewed the literature, what's going on, what had
15 been reported, and so it's hard to say.

16 It was many, many hours, and we felt from the
17 beginning that we were doing something very meaningful and
18 groundbreaking.

19 Q. Were you and your team compensated for your time?

20 A. No, we weren't compensated, but we were given an
21 honorarium, which is typical. You know, you give a talk or
22 you do things, and that's sort of a thank you and that was --
23 that occurred after it was constituted. That is never
24 mentioned upfront.

25 I didn't say that -- I told them: You will serve on

1 this committee and your expenses will be reimbursed. That's
2 all that was stated upfront. And then after we got going, I
3 made a suggestion, you know, it would be good to give an
4 honorarium.

5 Q. Do you recall what the amount of the honoraria you
6 received were?

7 A. I don't think it was ever over a thousand dollars. It
8 was maybe 5 or 6 or \$700. I don't think it occurred every
9 year. And then we sometimes met in not-so-nice places, and
10 sometimes we met in nice places. And that was also a positive
11 aspect and a thank you, so to speak.

12 Q. Do you recall how many honoraria you and the other
13 members of the Scientific Advisory Committee received over the
14 course of your work on the Scientific Advisory Committee?

15 A. I really don't. I really don't recall. It was no more
16 frequent than annual, and I'm fairly confident it didn't
17 happen every year.

18 Q. Did anyone ever raise a concern about the payment of
19 honoraria to the Scientific Advisory Committee?

20 A. Only once. Later, as you look at this list, we -- we
21 added Paul Thompson. I knew Paul Thompson from Purdue and
22 then he was at Michigan State. Paul Thompson is a philosophy
23 professor and works in ethics, and he just has a personal
24 value that he never accepts honoraria from anyone.

25 So he returned his, and that was the only time, but

1 that happened sometimes. That's -- the majority of -- the
2 majority of researchers or educators at universities will
3 accept honorarium and they'll also do consulting.

4 Q. Now, Dr. Armstrong, you referenced also that the expenses
5 of the Scientific Advisory Committee members were paid by UEP.
6 Did those expenses include travel to nice places?

7 A. Yes.

8 Q. And can you give the jury an example?

9 A. In fact, the first time my wife and I ever traveled to
10 Hawaii was in 2006, and that was a UEP Committee. So I
11 remember that one because we had never traveled to the islands
12 before, and it also included my wife's travel as well. And so
13 spouses and partners were sometimes included and sometimes
14 not. Sometimes we met in like a hotel in Chicago, worked for
15 a couple of days and then, you know, went home.

16 Q. And was the purpose of each of those trips to conduct
17 business of the Scientific Advisory Committee?

18 A. Oh, yes.

19 Q. Did you report the honoraria and expense payments to the
20 IRS?

21 A. I -- yes, honoraria you would, but we typically -- most
22 universities, you don't report the honoraria to the
23 university.

24 Q. Did you consider the Scientific Advisory Committee
25 members to be unpaid?

1 A. I considered them to be unpaid because they were not, you
2 know, under consulting agreement. And, again, you know, I go
3 to Ohio and I give a speech to the Ohio pork producers and
4 they give me a 500 honorarium and they pay my expenses.
5 Neither I nor the university consider that payment.

6 Q. Did the compensation that you and the other committee
7 members received from UEP that we discussed in any way
8 influence the animal welfare recommendations that the
9 Scientific Advisory Committee made?

10 A. No.

11 Q. Was the compensation that you and the other members
12 received from UEP in any way contingent on the views you
13 expressed or the recommendations that you made?

14 A. No. In fact, I don't think we received any honorarium.
15 It was after the first guidelines were produced.

16 Q. Did you ever do any work for UEP separate and apart from
17 your work on the Scientific Advisory Committee?

18 A. Yes, I did.

19 Q. What was that work?

20 A. Well, it started small and then grew, and as we -- you
21 know, post 2000 or around that time, we started getting
22 involved with letting people know. For example, I traveled
23 with a reporter to an egg farm in Wisconsin and we ended up
24 getting a front page story, US Today, about egg production.
25 And it was a small operation, 1 million birds. That's the

1 minimum level that you need as a family operation to be viable
2 in the egg industry if you're selling your own eggs.

3 We also did a video on mother and daughter who had
4 never been on an egg farm. We did an interview before and
5 after, did a lot of media, gave a lot of presentations. It
6 was really separate of my work as chair.

7 Q. And were you paid for that work, Dr. Armstrong?

8 A. Yes. I was not at first, and then later I asked to be
9 paid because I realized there were other consultants for UEP,
10 and I felt it was fair to me and my family to be paid.

11 Q. Did you have a consulting arrangement for that work with
12 UEP?

13 A. I did.

14 Q. And what years was that arrangement in place?

15 A. I don't recall, but it -- I think it started about -- I
16 think -- I think it was for about ten years, from 2001 to
17 2011, something like that.

18 Q. And was that arrangement in writing?

19 A. No, just an e-mail back and forth.

20 Q. Why wasn't it in writing?

21 A. Well, I had gotten to know Gene Gregory really well and I
22 was also raised to be, you know, kind of quiet about money,
23 and I -- Gene would frequently put things in United Voices,
24 that's the newsletter of the industry, and I, frankly, did not
25 want that in the newsletter, in the industry.

1 The other thing that happened, when I joined the
2 McDonald's panel, which was before this started, on the day it
3 was announced that I had joined the McDonald's animal welfare
4 panel I got a letter from PETA congratulating me, People for
5 Ethical Treatment of Animals. I got a letter from them
6 congratulating me. That same day or the next day Bob Langert
7 sent me a letter -- Bob Langert being the executive vice
8 president for sustainability of McDonald's, he got a letter
9 from PETA disparaging me and saying how did you put this
10 person on the committee?

11 MR. BLECHMAN: Your Honor?

12 THE COURT: Hold on, Dr. Armstrong.

13 MR. BLECHMAN: Objection. Hearsay.

14 THE COURT: Okay.

15 BY MS. SUMNER:

16 Q. Dr. Armstrong, try to confine your answers to sort of
17 what you understood at the time and refrain from talking about
18 what other people told you.

19 A. Yeah. So I was concerned about animal rights activists,
20 and later on, I was also accused of being a radical by the
21 pork and the beef industry.

22 Q. Did you disclose this consulting arrangement with UEP to
23 others?

24 A. Yeah, I told a couple of my committee members. And I
25 disclosed it to the university.

1 Q. And do you still do consulting work for UEP today?

2 A. No.

3 Q. When was the last time you did consulting work for UEP?

4 A. 2011, that's the year I became president of Cal Poly.

5 Q. Approximately how much time did you spend doing this
6 consulting work for UEP?

7 A. Oh, I'd average three or four hours a month easy.

8 Q. And how much did you earn total for that work?

9 A. I think, in total, over ten years, it was about \$80,000.

10 I think in my entire career, in consulting, I've earned
11 probably a little less than \$100,000 total.

12 Q. And annually, about how much did you earn each year
13 during this consulting arrangement?

14 A. I can't recall exact numbers, but maybe 8 to 12, to 15,
15 it depended on the year.

16 Q. And do you know approximately how much you were paid per
17 hour for this work?

18 A. Not enough. I do not know. But it -- it was really --
19 there were some other people doing consulting just in egg
20 economics or also in environment. And, you know, I had a
21 daughter in college and a son in high school and I felt it was
22 appropriate, as it was very different work, it was separate
23 from the committee.

24 Q. Did you report those consulting fees as income?

25 A. Yes.

1 Q. And did the universities that you worked for at the time
2 have disclosure requirements?

3 A. Yes, they did.

4 Q. And did you comply with those requirements?

5 A. Yes, I did; and actually reported in California and later
6 found that it actually wasn't required, but I went above and
7 beyond, I believe.

8 Q. Now, did this consulting income in any way influence the
9 opinions or recommendations or conclusions that you reached
10 while on the Scientific Advisory Committee with respect to the
11 guidelines?

12 A. Absolutely not.

13 Q. Did you receive any payments from UEP other than the
14 honoraria, the expense reimbursement and the consulting fees
15 we have discussed?

16 A. No.

17 Q. You personally?

18 A. No.

19 Q. Did UEP ever make donations to your
20 department's discretionary fund at Michigan State?

21 A. Yes.

22 Q. Could you explain to the jury, please, what a
23 discretionary fund is?

24 A. Yes, as a department head or dean or president part of
25 your responsibility is to raise funds, and when we talk about

1 discretionary funds, it's funds that a department head or, in
2 that case, dean, you could use to help a student in need,
3 take, you know, individuals out to a dinner, host donors, it's
4 discretionary but still within the rules of the university.

5 And so that's one of the measures. We're measured on how much
6 money we raise. And so I thought it was appropriate to
7 provide some support for the university.

8 Q. Could those funds be used in any way for your personal
9 benefit?

10 A. No.

11 Q. And in your experience, are such donations typical?

12 A. Oh, yes. While I was at Michigan State, we raised, my
13 ten years there, \$180 million. And to date, at Cal Poly we've
14 raised 650 million -- \$650 million since I've been at Cal
15 Poly.

16 Q. And do the donations that UEP made to Michigan State in
17 any way influence your work on the Scientific Advisory
18 Committee?

19 A. No.

20 Q. All right, let's turn back to your work on the Scientific
21 Advisory Committee in particular. Once you have formed the
22 committee and had the team in place, what happened next?

23 A. We met for the first time and we -- I established some
24 ground rules that we all agreed with. First of all, that
25 we're using animals and we use animals as a society. We're

1 part of the food chain, that it does impinge upon their
2 welfare. We discussed that. We also then had asked Joy Mench
3 in advance to review the different types of housing, laying
4 hen cages, which is -- which was 98 percent of the laying hens
5 in the U.S. at the time, different types of housing, modified
6 or enriched cages, outdoor, organic and she reviewed all of
7 those and the pros and cons. And so we then made -- we'd
8 already made some assignments before we met in the different
9 areas, and we just listened to each member talk about the
10 literature, what do we know and what do we not know. That's
11 what universities do. We figure out what we know and we often
12 challenge that, and then we try to figure out what we don't
13 know. And it's a bit like an investigation and that's what
14 got me excited about research over the years.

15 Q. Did the committee tour an egg facility as part of that
16 initial early work?

17 A. Yes. UEP, of course, provided that tour. We toured egg
18 facilities in Iowa, and we toured facilities, I think at least
19 a couple of different locations, and I commented that I hope
20 nothing happens to this group because it would be devastating
21 to animal welfare work in the U.S. because we had so many of
22 the scientists in one location. That's how few people were
23 working in animal welfare at the time. So we toured the
24 facilities.

25 Q. Can you tell the jury what you learned while on those

1 tours?

2 A. I had been in egg facilities before and we -- we learned
3 that there were many things that needed to be improved.
4 Ammonia levels were elevated. Manure was dropping from one
5 cage down on birds in another cage. The feather cover of the
6 birds in some cases looked like the animal activists' photos.
7 There were -- there were some other issues with regard to how
8 the industry talked about the -- they called the beak trimming
9 debeaking. There were just a lot of issues that we found on
10 that tour.

11 Q. How did the Scientific Advisory Committee determine what
12 areas of animal welfare to focus on?

13 A. They basically looked at the normal production and we
14 discussed those different areas. And I don't recall exactly
15 how that fell out, but it fell out pretty quickly, and we
16 divided up the work, typically with one person in lead,
17 somebody perhaps second. And that's how scientists do a lot
18 of work, a lead and a second, and then everyone else critiques
19 it and you reach a conclusion.

20 Q. What options were on the table for the committee at that
21 time?

22 A. There were no constraints put on the table. I
23 specifically said, you know, I bring this committee together,
24 there's no guarantee that this committee will say that cages
25 as they exist today are humane. And the industry said, you

1 know, the representatives said, We want to know.

2 Q. Did anyone at UEP give you any instruction as to how you
3 should come out on any of the issues you were addressing?

4 A. No.

5 Q. And did there come a time when the Scientific Advisory
6 Committee shared its work plan with UEP's members?

7 A. Yes.

8 Q. When?

9 A. October of 1999. I presented our preliminary work to the
10 United Egg Producers' annual meeting. Bob Langert from
11 McDonald's also spoke and was in attendance at that meeting
12 and I presented the preliminary recommendations at that time.

13 Q. And what was the membership's reaction?

14 A. It ranged. There were some people that came up to me
15 afterward and said, You're ruining the industry, we cannot
16 make these changes. But some people stood up and said, We
17 need to be on the offensive, we need to make changes. And
18 they also referenced the industry's experience with
19 cholesterol in the past, the industry -- many years ago,
20 cholesterol was bad and they invested in research at
21 universities, independent research, and really, we are where
22 we are today, that an egg is a healthy meal with balance. And
23 so they -- the majority said we've got to do what's right.
24 But there were people that pushed back severely.

25 Q. Among those who pushed back severely, what was your

1 understanding as to why they were resistant?

2 A. Well, I think it's just like anything else, some of it
3 was just being resistant to change. I mean, I've been in a
4 lot of university organizations and, you know, we all
5 experience change. It's really good unless it's happening to
6 us. But there were also some very serious economic
7 considerations in making changes to facilities and, you know,
8 one particular group said, I don't see how we can get ammonia
9 below 100 parts per million in the winter in our facilities,
10 below 100 parts per million.

11 Q. Do you recall any specific producers who were among those
12 who were resistant to these changes at that time?

13 A. Bob Sparboe, Garth Sparboe, a producer in Ohio, some
14 other producers in Iowa.

15 Q. Now, how did the committee get from its initial meeting
16 to creating a set of scientific recommendations for the egg
17 producers?

18 A. We took those initial guidelines, they did not change
19 significantly. Initially, we said 72 square inches per bird
20 and then we had a discussion that, look, this is -- well,
21 first of all, we decided that with proper management, the
22 different housing systems could be humane. So then we said
23 let's work on cages. Because at the time 98 percent of the
24 well over 200 million laying hens in the country were in
25 cages. So that was not a given, that was something we

1 discussed. So then we started making recommendations for
2 cages. And then -- and it fell into place as we went through
3 talking about what do we know, what conclusions can we draw,
4 and based on what we know, what recommendations can we make
5 for each individual topic?

6 Q. At the time that the Scientific Advisory Committee was
7 discussing these recommendations and talking specifically
8 about the cage space requirements that you just referenced,
9 were you aware that Don Bell had proposed minimum floor space
10 as a way to correct the nation's flock size and decrease the
11 supply of eggs?

12 A. I really don't recall. Don Bell made a lot of different
13 recommendations, many -- several of which, you know, we would
14 listen to. I mean, he even made the recommendation that we
15 use water withholding as a way to induce a molt. And I said
16 there's no way the committee would, you know, entertain that.
17 So I -- I don't recall any discussions in the committee with
18 regard to space and flock size.

19 Q. Dr. Armstrong, can you explain for the jury the criteria
20 that the committee used generally to measure animal welfare?

21 A. Yeah, that's a -- that's not an easy thing because many
22 different people have many different views, but from a
23 scientific perspective, we looked at all the pros and cons of
24 the different housing systems. If a bird is confined, they
25 can't move around as much, but there are advantages because

1 fewer will die. So what we decided at the very beginning is
2 we should make these recommendations, we're not in the
3 position to say when they should be applied because we're not
4 producers, but we made these recommendations, and we decided
5 to take a very conservative approach to animal welfare. One
6 would be, what is the hen producing? So how many eggs will a
7 hen produce? So a hen produces an egg not quite every day but
8 24, 26, 28 hours, right. So how many eggs are being produced,
9 productivity.

10 Number two, do they live? And we call that
11 mortality. So that's a very fundamental and conservative
12 measure of animal welfare.

13 We also looked, do they have enough space to sit
14 down? Now, you go beyond that and you get into different
15 behaviors of wing flapping, birds like to sit on a perch, they
16 like to dust bathe. They don't have to do those things, but
17 they're biologically tuned to do those things. They want to
18 flap their wings. They want to dust bathe and they like a
19 nest box, they like a dark place to lay their eggs. So those
20 were beyond the conservative views of animal welfare. So,
21 again, how many live, and what did they produce?

22 Q. Did the Scientific Advisory Committee include scientific
23 references or citations in its recommendations?

24 A. Yes. A really good example is there were studies
25 conducted over many years where individuals had looked at what

1 this might have been, a nutritional diet or how much light the
2 birds get. There were all these studies done over the years
3 at universities. And they always measured mortality and they
4 always measured per hen egg production. So one paper in
5 particular, published in '84, took studies from 1971 to 1983.

6 MR. BLECHMAN: Your Honor, Objection. Hearsay.

7 THE COURT: Well, I think -- is this question not
8 the basis of what they were looking at?

9 MS. SUMNER: Yes, Your Honor.

10 THE COURT: All right. Within that limitation, I'll
11 overrule the objection.

12 THE WITNESS: So the bottom line is there were years
13 of work that demonstrated when birds had very little space,
14 more would -- more would die and they'd produce fewer eggs.
15 You'd give them more space within reason, so 48 inches up to
16 80 inches, that was the range. Then you'd get fewer birds
17 dying and more eggs produced. So we looked at per hen egg
18 production and did they live or die, and the data was really
19 clear. I can give you more detail than that, but more than
20 you may want to know.

21 BY MS. SUMNER:

22 Q. We'll get into more detail in a little bit. Thank you.

23 Did the Scientific Advisory Committee anticipate that their
24 recommendations would be published more broadly than UEP?

25 A. We talked about that and I've actually led an effort

1 early on because we felt that -- especially initially, when
2 the United Egg Producers accepted the guidelines in principle
3 and said, yes, we -- we accept these guidelines, I recommended
4 and we actually had a paper published in Feedstuffs that
5 chronicled everything that we had done.

6 And Feedstuffs is a magazine that -- not -- it's not
7 a scientific journal, but it's the industry -- everybody in
8 the universities, everybody reads it. And we wanted to impact
9 other animal ag groups, and we wanted to really document what
10 we had done.

11 Q. Let's turn back now to the September 2000 version of the
12 Scientific Advisory Committee's recommendations which is at
13 Tab 1 of your binder. And this is Plaintiffs' Exhibit 52.

14 Was the September 2000 version the first draft that
15 was circulated by the Scientific Advisory Committee?

16 A. I believe so.

17 Q. Do you recall a draft being circulated in May of 2000?

18 A. Oh, yes. Yes. Yeah, that -- yes.

19 Q. And was that May 2000 draft shared with UEP?

20 A. Yes.

21 Q. Okay. And were they discussed with UEP?

22 A. Yes.

23 Q. Did the recommendations change as a result of those
24 discussions with the producers?

25 A. Not -- never -- the main recommendations never really

1 changed. They evolved, but they didn't change relative to
2 those discussions.

3 Q. Do you recall anything about -- specifically about those
4 discussions between May and September with the producers?

5 A. I know the initial discussion we discussed 72 and then
6 went to a range, but I'm not -- I don't recall. That's a long
7 time ago.

8 Q. Did UEP ever instruct or require the Scientific Advisory
9 Committee to change the recommendations?

10 A. No.

11 Q. Look at page 2 of this document. It says: Mission
12 statement from the Scientific Advisory Committee on animal
13 welfare.

14 Do you see that, Dr. Armstrong?

15 A. Yes.

16 Q. Who wrote this?

17 A. I wrote it, but I never wrote anything in a vacuum.
18 Anything that we ever -- anything that ever left the committee
19 was reviewed by the committee. It could have been edited, it
20 could have been -- and we reached a consensus. So I was the
21 primary author is the way we would say it in scientific terms.

22 Q. I'd like to direct your attention to a sentence that's in
23 the middle of the second paragraph on this page that reads:
24 UEP's charge was simple. They asked for a committee that
25 could provide them with science-based welfare guidelines.

1 Do you see that, Dr. Armstrong?

2 A. Yes.

3 Q. And was that your understanding of the charge that you
4 were given by UEP in 1999?

5 A. Yes.

6 Q. Turn to page 4 of these recommendations which is entitled
7 Public Perceptions and Attitudes. And I'd like you to focus
8 here on the third paragraph. And this is under the header
9 Literature Review.

10 Do you see that?

11 A. Yes.

12 Q. Did the literature review that was undertaken by the
13 committee lead the committee to the understanding that surveys
14 and polls showed that consumers have clearly indicated that
15 they retain confidence in farmers and ranchers to make
16 responsible decisions concerning the welfare of their animals?

17 A. Yes.

18 Q. And did it also lead the committee to the understanding
19 that consumers regard the humane treatment of farm animals
20 important and that their ethical perspectives on animal
21 treatment are continuing to evolve?

22 A. Yes.

23 Q. And I'd like now to focus on the recommendations that are
24 at the bottom of this page. There are three enumerated
25 recommendations.

1 Do you see those?

2 A. Yes.

3 Q. Were these, in fact, the general recommendations that
4 were made by the Scientific Advisory Committee at this time?

5 A. Yes.

6 Q. Okay. Let's talk through each one of these just briefly.
7 Why did the Scientific Advisory Committee recommend that the
8 UEP should regularly review and revise their guidelines for
9 hen welfare to take into account current scientific knowledge
10 about hen welfare?

11 A. Well, we all -- we recognize as scientists there are
12 things we know and things we don't know, and we wanted to make
13 sure the producers understood that here are the guidelines
14 based on what we know now. And things change. We do more
15 research. And also public attitude changes.

16 Q. Looking at the second recommendation, why did the
17 Scientific Advisory Committee recommend that the
18 recommendations in the UEP Guidelines should be designed to
19 foster high standards of hen welfare while still maintaining
20 the economic vitality of the industry?

21 A. Yes, one of the things that I really kind of pushed the
22 committee and the committee was in total agreement, that we
23 look at sustainability from a.

24 Holistic perspective. If we had guidelines that
25 said, well, all birds should be outside, there should not be

1 cages, that wasn't practical, and the science also said with
2 proper husbandry, cages are okay.

3 And so guidelines that are not practical, you know,
4 they can't be implemented. Plus we had -- we are also
5 concerned as a group of scientists that egg is a very
6 nutritious food, and if you do things and add regulations such
7 that the price of eggs doubles, triples, quadruples or
8 quintuples, then it might not be accessible for those that
9 need the protein. So affordability to the consumer was a
10 value that we included and that we have really pushed, and you
11 see a lot of companies talking about that.

12 Q. Finally, Dr. Armstrong, why did the Scientific Advisory
13 Committee recommend that the UEP should promote scientific
14 research on methods to evaluate and improve hen well-being?

15 A. Well, to simply get at what we don't know, and there were
16 some guidelines that were very -- recommendations that were
17 very clear and some that weren't as clear because we didn't
18 have that depth of information.

19 Q. In your view, were these recommendations consistent with
20 the concept of continuous improvement to the guidelines?

21 A. Yes.

22 Q. I now want to walk through each of the recommendations
23 that the Scientific Advisory Committee made.

24 THE COURT: So, Ms. Sumner, would it be all right
25 with you and your -- everybody else here if the jury took a

1 break?

2 MS. SUMNER: It would be a great time for a break.

3 THE COURT: Okay, so we'll take a ten-minute break,
4 ladies and gentlemen. And the same rules apply, but I'll see
5 you back here in about ten minutes.

6 THE DEPUTY CLERK: All rise.

7 (Jury out.)

8 THE COURT: And you, also, can enjoy the break.

9 THE WITNESS: Thank you, Judge.

10 THE COURT: No problem.

11 As may all of you.

12 (After recess:)

13 THE DEPUTY CLERK: All rise.

14 (Jury in.)

15 THE COURT: Okay, everybody, you may take your
16 seats.

17 And, Ms. Sumner, you may proceed.

18 MS. SUMNER: Thank you, Your Honor.

19 BY MS. SUMNER:

20 Q. Dr. Armstrong, before the break we talked about getting
21 into the specific recommendations that were made by the
22 committee and the guidelines, so I'd like to go there now. If
23 you can please turn to the first recommendation at page 5.
24 This recommendation deals with beak trimming. The jury has
25 heard a lot about beak trimming at this point. Could you just

1 briefly explain for the jurors why hens in cages are
2 beak-trimmed?

3 A. Regardless of the system, hens will peck each other.
4 It's feather pecking or cannibalistic pecking. So from an
5 animal welfare perspective, almost all systems you have to
6 beak trim in order to prevent mortalities from reaching 30, 40
7 percent or higher.

8 Q. What was the state of play with respect to the science on
9 beak trimming and the practice of beak trimming when the
10 Scientific Advisory Committee began its work?

11 A. Beak trimming occurred quite -- it happened one, two, or
12 three times during a year and a half, or multiple if they
13 molt, multiple years, and they would do that in order to
14 prevent the pecking, but it also affected behavior of the
15 bird. And so it was also called debeaking, which is not
16 really a correct term, because the tip of the beak is cut off
17 or -- with a very hot knife, cut off or burned off, and so
18 it's not really debeaking.

19 Q. I'd like to direct your attention to the Literature
20 Review section of this recommendation, and ask whether the
21 literature -- whether the committee came to understand as a
22 result of this literature review that there were advantages
23 and disadvantages to beak trimming?

24 A. Now, the advantages included the suppression of the
25 negative pecking, and the long-term -- I mean, that's an

1 advantage. But long-term pain resulting from the beak trim
2 was one of the big disadvantages for the bird. There's also
3 short-term stress no matter when a beak trim occurs, but when
4 it results in long-term or chronic pain, that's when it
5 becomes more of an animal welfare disadvantage to the
6 individual bird. But there's an animal welfare advantage to
7 the flock or the group of birds in a cage because it really
8 limits the pecking to feather pecking and doesn't get to
9 cannibalistic pecking as often.

10 Q. If you look at the Conclusions section of this
11 recommendation, could you please tell the jury what
12 conclusions the Scientific Advisory Committee reached
13 regarding beam trimming.

14 A. Well, the first thing we stated is that for the
15 long-term, those that produce the birds, the genetic stock,
16 should pay attention to behavior, and try, for the long-term,
17 to have birds that don't require beak trimming. Those
18 genetics did not exist at that time, and I don't believe they
19 exist now. That was one comment that we made.

20 And then we also mentioned that therapeutic beak
21 trimming is important in case cannibalism breaks out. If
22 there's a lot of pecking going on in an older flock, then one
23 should step in.

24 And then we made a conclusion that the first trim
25 for a chick should occur before ten days of age. Because

1 there was really clear evidence that a trim after ten days of
2 age would result in chronic pain for the bird. So the initial
3 beak trim should be before ten days of age.

4 Q. Did the committee conclude at this time that the
5 advantages of beak trimming outweighed its disadvantages?

6 A. Absolutely.

7 Q. And then turning on page 6, please, to the specific
8 recommendations by the committee, could you explain to the
9 jury what the committee recommended with respect to beak
10 trimming at this time in September of 2000?

11 A. So this is where we turn what we know and believe we have
12 good evidence for into guidelines. So first of all, we said,
13 you know, the genetic companies should look in the future,
14 let's try to avoid beak trimming altogether, that means
15 changing the nature of the bird. So that's number one.

16 Number two, training personnel. People have to know
17 what they're doing dealing with a baby chick, any type of
18 animal practice. And we then had recommendations for single
19 trim, lots of details, and then we said for a second trim, if
20 needed, in order to prevent mortality from spiking or death
21 occurring, and we gave -- we gave recommendations there.

22 Q. Now, just to be clear, Dr. Armstrong, at this time, was
23 it possible to select birds that needed no beak trimming?

24 A. No.

25 Q. Did that ever become possible during your time on the

1 Scientific Advisory Committee?

2 A. No.

3 Q. And is it, in fact, possible today?

4 A. Not to my knowledge, but I'm not up on the details.

5 Q. Let's turn next to the cage space recommendations on
6 page 8. Why did the Scientific Advisory Committee issue
7 recommendations for cage production?

8 A. Well, after we went through the advantages and
9 disadvantages of all the systems, we felt that all systems
10 could be humane with proper husbandry practices. So we
11 started with cages, because at that time 98 percent of the 200
12 million-plus birds in the U.S. were housed in cages. Just a
13 plain cage. That's why we started there.

14 Q. Just very briefly, Dr. Armstrong, could you explain to
15 the jury what the committee concluded at this time about the
16 relative advantages and disadvantages of cages as compared to
17 other available production systems?

18 A. So cages result in a lower mortality, more hen egg
19 production, and the ability for a bird to perform basic
20 behaviors with the proper space, standing, and eating. The
21 big disadvantage of a cage is a bird can't perform some of the
22 natural behaviors that they want to perform, perching, wing
23 flapping and they like to lay their eggs in a nest box or in a
24 dark area. On the other hand, a noncage system has usually
25 about double or more mortality than a cage system. So twice

1 as many birds will die. But the birds can exhibit a lot more
2 behaviors. They can perch and they'll do that more at night
3 but they'll perch any time, and they like to dust bathe, but
4 they especially like to lay the eggs in a nest box. So those
5 are the primary advantages and disadvantages.

6 Q. Was there any disagreement among the members of the
7 Scientific Advisory Committee at this time about whether or
8 not to recommend guidelines for caged productions
9 specifically?

10 A. No.

11 Q. And in these early years, did the Scientific Advisory
12 Committee use the word "humane" to describe caged production?

13 A. No. We -- we actually said that all the systems could be
14 humane with the proper advantages, but we did not really talk
15 about that and we didn't use the phrase or word "inhumane" at
16 that time because, again, we were just trying to get the
17 guidelines introduced, get them accepted and we looked at --
18 and I gave many presentations around the country of the
19 advantages and disadvantages of the different systems.

20 Q. And did that change over time?

21 A. Yes, it did.

22 Q. Why?

23 A. Well, there were some things that happened with producers
24 after the guidelines had been introduced that we did not
25 foresee, and basically the producers were shortcutting the

1 guidelines in that they started backfilling. They also --
2 some wanted to use it as a marketing tool; that is, if the
3 consumer didn't care or the person buying the eggs didn't
4 care, then why should you have the minimum welfare standards.
5 And the committee was vehemently opposed to those.

6 Q. Did the committee at some point in time begin to use the
7 word "humane" to refer to or to describe caged production?

8 A. Yes.

9 Q. And why did the committee's comfort with using that term
10 evolve over time?

11 A. Well, as it evolved -- and first of all, the producers,
12 the UEP accepted the guidelines and they were moving forward
13 and they were transitioning and we understood a transition,
14 but when you're only using it basically when
15 someone's looking, if they're buying your eggs, or if you're
16 backfilling, which you're putting birds into cages with other
17 birds and they fight, that's really circumventing -- really
18 circumventing the Animal Welfare Guidelines.

19 So the committee basically said, we set minimum
20 welfare guidelines for cages; that is, what do they produce,
21 how many birds die, and if you don't do that, then it's
22 inhumane. I mean, it got to that point because we felt we had
23 to. At the beginning we didn't need to because we didn't --
24 we didn't anticipate the people would cheat.

25 Q. Why did the Scientific Advisory Committee focus on the

1 amount of space for the hens in a cage?

2 A. Well, space is really important in a cage for two big
3 reasons. One is we felt a minimum behavior, again, is staying
4 alive, being able to eat and produce and to be able to sit
5 down. And at the time, 48 square inches did not do that.
6 48 inches -- 48 square inches did not allow all birds to sit
7 down at the same time.

8 There was clear evidence from the literature review
9 that if you housed birds at 48 square inches or 60 square
10 inches, that they produce fewer eggs and more die than if you
11 give them a bigger amount, 80 square inches. And it's a
12 straight line, 48 -- mortality is 48, 60, 80. Egg production
13 is 48, 60, 80.

14 And so the egg industry didn't evolve that way
15 because they didn't care about the birds, but the total cost
16 to produce an egg was maximized by having the birds at
17 48 square inches. So the amount of money that a producer,
18 what it cost to produce that dozen eggs was maximized because
19 the feed efficiency, all those factors.

20 So it wasn't that they didn't care about welfare.
21 They just evolved to the most efficient system, but it wasn't
22 good for the individual bird.

23 Q. Who conducted the literature review for this section of
24 the recommendations?

25 A. Joy Mench was in the lead, but Janice, Scotti -- Janice

1 Swanson, Scotti Hester, and Ruth Newberry were very involved.

2 Q. Dr. Armstrong, I'd like to show you two different-sized
3 areas that I believe you have referred to. This one is
4 48 square inches?

5 A. Um-hum.

6 Q. And this one is 67 square inches. These don't look very
7 different, do they?

8 A. Not from just looking at a piece of paper.

9 MS. SUMNER: May I approach the witness, Your Honor?

10 THE COURT: Yes.

11 BY MS. SUMNER:

12 Q. Dr. Armstrong, can you just take a minute and explain to
13 the jury what the difference -- or what the Scientific
14 Advisory Committee discovered through its work about the
15 differences in welfare for birds housed at each of those
16 densities?

17 A. So for one thing, the research was there that said for
18 the average-sized bird -- and there's a range of birds -- at
19 the time, they could sit here and not here (indicating). So
20 they could sit and they also need to be able to stand. So
21 they couldn't sit comfortably here, and they should all be
22 able to sit at the same time, right?

23 The other thing is that egg production was lower
24 here than here. And more birds die here than here. And it
25 was pretty clear. If you take a million birds, which is, you

1 know, minimal production size, that's about 80,000 birds over
2 a -- over a year and a half, two-year period, more birds that
3 will die.

4 Then at the same time, manure was dropping down on
5 the birds and ammonia levels were elevated. So it has to do
6 with being able to eat, being able to perform basic functions.
7 So again, our welfare measurements were very conservative, how
8 many birds lived and what did they produce, and that's the big
9 difference in these. Somewhat -- you know, 80,000 birds is a
10 big -- that's a big difference.

11 Q. I'd like to direct your attention back to the
12 recommendations of the committee, specifically, and to the
13 Conclusions section and ask you: What conclusions did the
14 Scientific Advisory Committee reach at this time about space
15 allowance for egg-laying hens?

16 A. Well, first of all, as I mentioned earlier, we said there
17 are many different systems and each has advantages and
18 disadvantages, and the committee, later on, developed
19 guidelines for different systems. And then because 98 percent
20 of the birds were in cages, we considered space allowance in
21 great detail and we felt 67 to 86 square inches a range.
22 Because there are different strains of birds, we said a range
23 versus 72, which is about the average.

24 And we also talked about feeder space. We felt --
25 and the research wasn't clear, but we felt it needed to be at

1 least 4 inches in the trough per bird. And then we also made
2 comments about modified or enriched cages as being something
3 for the future. And then we talked about housing for other
4 types of birds, and then we also discussed different types of
5 systems.

6 Q. Let's look now specifically at the recommendations, the
7 number of recommendations which begin on page 10. And I'd
8 like specifically to direct your attention to the second one.
9 This deals with the hens being able to stand comfortably
10 upright in their cage without having their heads protruding
11 into the cage above.

12 Did these guidelines recommend a strict minimum for
13 cage height?

14 A. When you get into guidelines and animal welfare
15 standards, you can have a performance standard or a
16 prescriptive standard. In this case we just used more a
17 performance standard. A bird should be able to stand. It's
18 difficult to just say an inch height because cages are sloped.
19 So the eggs roll down and can be collected. And so there's a
20 different height. It's not like this room. It's a different
21 height.

22 So a bird should be able to stand in any part of the
23 cage, and that -- that's allowed, that also is connected with
24 the space. It can't be -- you know, it can't be this much
25 space and this. They can't stand up. It has to be -- they

1 have to be able to stand up in all of that space.

2 Q. Dr. Armstrong, looking at the third recommendation, the
3 committee recommended a space allowance in the range of 67 to
4 86 square inches of usable space per bird depending upon the
5 type of cage and the type of bird.

6 Why did the committee recommend a range?

7 A. We recommended a range because of the different types of
8 birds used. Most of us think about a white chicken laying
9 eggs. That's the Leghorn. And a lot of them are that strain,
10 but there's increasingly demand because consumers like brown
11 eggs, and different strains lay brown shell-colored eggs and
12 there's just a lot of differences. So there's a lot of
13 different strains.

14 Q. And was this a change from the Scientific Advisory
15 Committee's initial thinking?

16 A. Yeah. Our initial -- when I initially presented in
17 October of '99, I said 72, and then we had back and forth,
18 lots of discussion, and we settled on a range. McDonald's
19 later said 72, but McDonald's was dealing about 4 to 5 percent
20 of the eggs in the country. Whereas UEP was dealing with over
21 90 percent of the eggs. So a range made sense for the
22 committee based on the range and size of birds.

23 Q. There are references in this -- in these guidelines and
24 this one in particular to small Leghorn strains.

25 Can you explain to the jury what that reference is

1 to and what percentage of hens housed in egg production at
2 that time were considered small Leghorn strain hens?

3 A. Yeah, there were different types, and some might have a
4 number, like a W36 strain of Leghorn hens. I don't recall the
5 percentage, but it was a high percentage of these Leghorn hens
6 that produced eggs. But, again, we felt like we couldn't make
7 the recommendations just for even the majority because this
8 was for all egg -- all that were voluntary members of the
9 United Egg Producers.

10 Q. When these white Leghorn hens are given the minimum
11 amount of space recommended in these guidelines, the 67 square
12 inches, are they able to flap their wings?

13 A. Maybe one at a time, but not -- not all together, but the
14 wing flapping is -- that's one of the disadvantages of cages
15 and wing flapping is limited.

16 Q. Do you consider that an animal welfare problem?

17 A. It is an animal welfare problem, but you have to balance
18 the whole. It's a bigger problem when more hens die. And
19 that's why we, again, set the guidelines for cages. Where
20 mortality is low, the bird can't express as many behaviors.
21 That's where public perception can change over time.

22 Q. Now, Dr. Armstrong, did the Scientific Advisory Committee
23 consider the potential impact on flock size when it made its
24 cage space recommendations?

25 A. No.

1 Q. Did the Scientific Advisory Committee consider the
2 potential impact on overall egg supply when it made its cage
3 space recommendations?

4 A. No. We just simply wanted to be practical, but not that.

5 Q. And could you please tell the jury how important was the
6 cage space allowance relative to the committee's other
7 recommendations?

8 A. Well, this was the biggest one because -- and it also
9 affected the actual facilities because the facilities that we
10 visited in Iowa were these A-frame, the manure dropped down on
11 the birds, the manure stayed in the building, and these
12 facilities had been built -- and there were a lot of birds,
13 especially in the breaker industry -- at 48-square inches.

14 So that's why we stayed away from setting time
15 lines. That wasn't our role. We said here's what should
16 happen, but it wasn't up to a group of scientists to say when
17 it should happen because that's a major change going from 48
18 to 67 square inches.

19 Q. You mentioned feeder space a little earlier. Why is
20 feeder space an important consideration for the welfare of
21 these hens?

22 A. Well, studies have shown in situations where there's
23 crowding that one of the causes of death is starvation. So
24 you think about the phrase "pecking order," well, that's a
25 pecking order. So if there's too tight a space, not a lot of

1 birds can get to cage. The wisdom at that time was the
2 pecking order, well, that would contribute to emaciation and
3 death, not being able to eat enough.

4 You could also see it from the view of the flock in
5 that, again, the birds with the higher -- the cages with the
6 higher density, fewer eggs were produced which meant they
7 consumed less food, they consumed less feed.

8 Q. Look at page 10, again, of the specific recommendations.
9 What was the Scientific Advisory Committee's initial
10 recommendation regarding feeder space?

11 A. 4 inches.

12 Q. And why was that?

13 A. That's the best we knew at the time. Based on the
14 research, based on what we knew, we felt 4 inches was
15 appropriate.

16 Q. And at that time, did the committee believe that 4 inches
17 was needed so that all birds could feed simultaneously?

18 A. Yes.

19 Q. Did the Scientific Advisory Committee's views on the
20 feeder space recommendation change over time?

21 A. Yes, it did change over time, but only after research was
22 conducted at Purdue University that demonstrated that the
23 birds did not need to eat all at the same time.

24 Q. How did the recommendation change?

25 A. It changed to more of a performance standard. So all

1 birds need to eat, should be able to eat at the same time
2 instead of a specific linear inch.

3 Q. And did the research show that that was achievable with
4 fewer than 4 inches?

5 A. Yes. And what happened is --

6 THE COURT: Don't worry. I'm just getting more --

7 THE WITNESS: -- as the producers implemented their
8 guidelines and gave birds more space, they saw that fewer
9 birds died and there was better productivity. So they said
10 this 4 inches doesn't make sense because with better
11 productivity, they're getting more feed, and in the end, the
12 research, the scientific results really came in on the side of
13 performance standard.

14 BY MS. SUMNER:

15 Q. Now, on the next page of these recommendations, the
16 Scientific Advisory Committee discussed air quality. Can you
17 explain to the jury why air quality is an important
18 consideration in animal welfare?

19 A. So there's several gases that are produced by animals,
20 but, more importantly, produced when manure is sitting around.
21 Methane, we've heard about that from global warming, ammonia,
22 also hydrogen sulfide. The biggest issue at that time was
23 ammonia and we -- based on our research, we said the ammonia
24 should not be above 25 parts per million.

25 Q. What was your perception at the time as to where the

1 industry was on air quality prior to the Scientific Advisory
2 Committee issuing its recommendations?

3 A. I think there was -- it's hard to say, but the ammonia
4 levels were, you know, 50 parts per million or higher and
5 could sometimes spike to 100 parts per million. And if you
6 want to get a feel for that, it's a very eye-watering, tearing
7 experience when you're up above 75 or 100. The OSHA standards
8 for human beings for eight hours is 50. And so it was really
9 related to leaving the manure in the buildings that produced
10 that level of ammonia. I think some realized that was a
11 problem and some felt they didn't feel they could achieve that
12 in any reasonable time or any reasonable format without
13 redoing their whole facilities.

14 Q. Did you have an understanding as to why those who
15 believed that it would be very difficult to achieve the
16 Scientific Advisory Committee's recommendation felt that it
17 would be so difficult?

18 MR. BLECHMAN: Your Honor, objection. Foundation.

19 THE COURT: Do you want to rephrase that question?

20 MS. SUMNER: Sure.

21 BY MS. SUMNER:

22 Q. Did you have an understanding, Dr. Armstrong, as to why
23 producers thought air quality was a difficult thing to manage
24 at the time?

25 A. One of -- I'll just give you a conversation or facts that

1 were shared with producers that, you know, we're in a cold
2 climate, we really can't afford to heat the barn and move the
3 air through there and get ammonia down below 50 in the winter
4 in Iowa or cold climates. And, you know, that wasn't our role
5 to say whether you could do it or not, but from an animal
6 welfare perspective, it needed at some point to get below
7 25 parts per million because it is not good for the birds or
8 the humans working there.

9 Q. Let's look briefly at the recommendation that the
10 Scientific Advisory Committee made on lighting. What was the
11 Scientific Advisory Committee's recommendation with respect to
12 lighting?

13 A. It would be -- it would be provided to allow effective
14 inspection of all birds and it should be conducted daily.
15 Every bird should be viewed daily. And then we talked about
16 light intensity. And birds produce more eggs when there's
17 more light, and so typically the lights will be on in a
18 facility, you know, 16, 18 hours, eight hours of dark, six
19 hours of dark. But our major concern was for animal welfare
20 to be able to view and pull out mortalities and inspect the
21 birds and make sure everything's okay. Make sure the feeder
22 wasn't broken, make sure water is there, and to inspect every
23 day, every level, and these are barns with multiple levels.

24 Q. Thank you.

25 Let's turn next to page 13 where the committee

1 addressed molting. Now, the jury's heard a lot about molting
2 at this point. Can you briefly explain, Dr. Armstrong, what
3 the purpose of a molt is?

4 A. The advantage of a molt is you take a flock of birds that
5 have been producing for many weeks, and you take them out of
6 egg production, and you rejuvenate the bird. They lose
7 weight, their reproductive organs are rejuvenated and you
8 don't have to bring in another whole round of baby chicks,
9 which means euthanizing the roosters -- the males -- that
10 hatch, so you have a real positive from the whole flock
11 mortality or flock welfare, I should say. So that's a
12 positive, rejuvenation. They're ready to lay again.

13 The negative is how it was induced. Originally it
14 would be water withdrawal and feed withdrawal. No feed or
15 water for several days up to two weeks. At the time that we
16 were looking at this, there was water -- all they wanted, ad
17 libitum, but the typical practice was to reduce feed to zero,
18 to zero. The problem with that is the immune system is
19 suppressed. And birds lose too much weight, you have an
20 increase in mortality, birds die, and, again, think about it
21 from the perspective of basic animal welfare, you're eating,
22 you're producing and you're living, and so that's -- that was
23 the negative side of molting.

24 Q. Now, at this time, Dr. Armstrong, was there a commercial
25 viable alternative to a feed-withdrawal molt?

1 A. There were lots of ideas on the street, but there were
2 not any commercially viable methods that had gone through
3 research practices.

4 Q. I'd like to direct your attention to page 15 of the
5 guidelines, the committee conclusion sections, and ask you to
6 please explain to the jury, what did the Scientific Advisory
7 Committee conclude at this time regarding molting as a result
8 of its research?

9 A. And so again, this is 2000, and again, we're dealing with
10 98 percent of the birds in cages and we said: Producers and
11 researchers are encouraged to come up with alternatives to
12 feed withdrawal/starvation. The alternatives should include
13 nutrition that is equal to what a bird needs when it's not
14 producing eggs.

15 Because you can imagine a bird's producing eggs,
16 they need a lot more energy and protein than if the bird is
17 not. They produce an egg about every 28 hours.

18 Body weight could be lost, but not to compromise
19 mortality. And the mortality shouldn't spike.

20 So that -- that was our recommendation.

21 And then we said: Until those alternatives are
22 available, then it should be a minimum, and then we provided
23 guidelines.

24 So we didn't -- we wanted to get rid of the
25 feed-withdrawal molt but we didn't say do it tomorrow. That

1 was not our role. And we said we know this is going to be
2 around, so here are the guidelines on how to do it in the best
3 way possible in a transition.

4 Q. Was additional research done?

5 A. Yes, UEP funded research at several places, North
6 Carolina State, Nebraska, several other universities. I think
7 it was four or five, and they all came up with different
8 methods to meet those guidelines. So you could induce a molt
9 without starving the bird. You could give them enough food to
10 knock them off of production, but that they would not have a
11 spike in mortality.

12 Q. So the research, did it show that farmers were able to
13 work with nutritionists and provide hens with a diet that
14 would allow them to feed and molt at the same time?

15 A. Yes.

16 Q. And did the Scientific Advisory Committee's
17 recommendations with respect to molting change as a result of
18 that research?

19 A. Yeah. As a result of that, I think by at least 2008,
20 feed withdrawal/starvation was not allowed, was not permitted
21 under our guidelines and recommendations.

22 Q. Dr. Armstrong, I'd like you to take a look at Tab 2 in
23 your binder. This is Plaintiffs' Exhibit 663. Did you attend
24 a meeting of the Producer Committee for Animal Welfare on
25 April 19, 2005, in Chicago?

1 A. Yes.

2 Q. And is the document that you're looking at, Plaintiffs'
3 Exhibit 663, a copy of the minutes of that meeting that you
4 have attended?

5 A. Yes.

6 MS. SUMNER: Your Honor, I would like to move for
7 the admission of Plaintiffs' 663 into evidence.

8 MR. BLECHMAN: Your Honor, we have no objection.

9 THE COURT: 663 is admitted.

10 (Exhibit received in evidence.)

11 MS. SUMNER: May we publish it to the jury?

12 THE COURT: Yes, you may.

13 BY MS. SUMNER:

14 Q. Dr. Armstrong, I'd like you to take a look at the bottom
15 half of the first page where it says, Recommendation for
16 Molting. Do you see that?

17 A. Yes.

18 Q. And I'd like you to read the italicized passage under
19 Recommendation for Molting.

20 A. Producers must eliminate the use of feed withdrawal to
21 induce a molt. If a molt is induced, the nonfeed withdrawal
22 method must meet all the following criteria: The hens should
23 be able to consume nutritionally adequate and palatable feed
24 suitable for a nonproducing hen. Bodyweight loss should be
25 sufficient so as not to compromise hen welfare. And mortality

1 during the molt should not substantially exceed normal flock
2 mortality. The committee recommends that this be considered
3 as a pass-fail in the audit. In other words, if the producer
4 uses feed withdrawal to molt, they fail the audit.

5 Q. And was this, in fact, the Scientific Advisory
6 Committee's recommendation for molting as of 2005?

7 A. Yes.

8 MS. SUMNER: We can take that down.

9 BY MS. SUMNER:

10 Q. Now, the next topic I want to talk about is backfilling.
11 And again, the jurors have heard a lot about backfilling. Why
12 is it that the Scientific Advisory Committee's original
13 recommendations in 2000 said nothing on the subject of
14 backfilling?

15 A. We didn't anticipate backfilling. We're not involved in
16 day-to-day commercial and we didn't think through all the
17 day-to-day commercial applications of instituting the
18 guidelines. So we didn't talk about it.

19 Q. At some point was the practice of backfilling brought to
20 the Scientific Advisory Committee's attention?

21 A. Yes, by several producers in UEP.

22 Q. And did the Scientific Advisory Committee address
23 backfilling?

24 A. Vehemently. The Scientific Committee was very opposed to
25 backfilling.

1 Q. I'd like to show you, Dr. Armstrong, if you could turn to
2 Tab 3 of your binder, please. This is a document that's been
3 marked as Defendants' Exhibit 665. It's already in evidence.

4 MS. SUMNER: May we publish it to the jury?

5 THE COURT: Yes.

6 BY MS. SUMNER:

7 Q. Dr. Armstrong, do you recognize this document?

8 A. Yes.

9 Q. And what is it?

10 A. It's a letter from -- signed by me as the chair, but
11 coming from the full committee and I never produced anything
12 that the committee did not review, edit, part of, to then Paul
13 Bahan, who was the chair of the Producers Committee for Animal
14 Welfare.

15 Q. So did you write this letter, Dr. Armstrong?

16 A. Yes, in consultation with the committee.

17 Q. And did anyone in particular from the committee help you
18 with this letter that you recall?

19 A. Scotti Hester and Joy Mench.

20 Q. And did you send this letter on or about October 4, 2004?

21 A. Yes.

22 Q. Now, I'd like you to take a look at the first paragraph
23 of the letter. At this time, was the Scientific Advisory
24 Committee extremely concerned about the industry's current
25 practice of backfilling?

1 A. Yes.

2 Q. And at the time, the Scientific Advisory Committee
3 established the original recommendations for the guidelines,
4 was it the intention to allow for backfilling of cages with
5 spare birds?

6 A. No. No. We did not anticipate they would do that.

7 Q. And are there animal welfare issues, Dr. Armstrong,
8 associated with backfilling?

9 A. Yes.

10 Q. And in this letter, did you explain to Mr. Bahan those
11 issues?

12 A. Yes.

13 Q. And can you explain them for the jury, please?

14 A. Well, it's in the second paragraph. First of all, bird
15 welfare is compromised when it's done every month to replace
16 mortality. And the whole idea is to keep the houses full,
17 keep egg production up. And what we know from science is that
18 if you mix flock -- mix birds from other flocks and different
19 ages, it increases susceptibility to disease. So older birds
20 may transmit diseases to the younger birds that are brought
21 in. They may not have been vaccinated, their immune system
22 may not be fully kicked in.

23 In addition, you get social competitiveness. You
24 get feather pecking and cannibalistic pecking when new birds
25 are introduced to an existing group. So there's eight birds,

1 two die, you put two young birds in there, it's not a pretty
2 scene. And there was no equivocation. Once we heard about
3 this, there was no equivocation from the committee that this
4 is not a good practice.

5 Q. Can you explain to the jury the source of the information
6 that's reflected in the second paragraph of this letter?

7 A. Yeah. Scotti -- or Patricia Hester is a faculty member
8 at Purdue on the committee. In fact, at the same time, she
9 was writing a review paper for a peer review journal on
10 various aspects of animal welfare, and she -- she is really
11 recognized as an expert in that area and validated by the rest
12 of the committee.

13 Q. And can you just explain to the jury briefly what a peer
14 review journal is?

15 A. So you have a review of all the literature or you have
16 original research that you've done. You submit it to a
17 journal and they send it to anonymous four or five reviewers,
18 they review it, they critique it, and it takes four or five
19 months, sometimes even six to eight months to go through the
20 system, and it's validated. And it has to go through that
21 process. That's peer reviewed. So that's how researchers at
22 universities are viewed. How many peer-reviewed journal
23 articles did you have or review articles?

24 Q. And was Ms. Hester's article from which this second
25 paragraph was taken, in fact, published in a peer review

1 journal?

2 A. Yes, it was published in the Poultry Science Journal.

3 Q. Now, did the Scientific Advisory Committee make a
4 recommendation to UEP with respect to backfilling in this
5 letter?

6 A. Well, we said, that they -- with utmost urgency, that
7 they should eliminate backfilling, and we said your customers
8 as well as Food Marketing Institute and National Council of
9 Chain Restaurants will not approve of this practice. So we
10 said it's essential to maintain science-based guidelines, and
11 we said it's important that they respond.

12 And we also -- this is where public perception comes
13 in, that -- what if you're consuming eggs and you find out
14 your eggs comes from this practice and an increased number of
15 birds are killed above what normally occurs, and that's our --
16 mortality spiked. So it's a public perception issue, too.

17 Q. And did the recommendation in this letter, in fact,
18 reflect the Scientific Advisory Committee's view at this time?

19 A. Yes.

20 Q. Now, did UEP ask for this recommendation?

21 A. They didn't ask for the recommendation. When we heard
22 about what was happening, the committee was really incensed.
23 They were angry from the perspective that how could they do
24 this.

25 Q. I'd like you to turn to Tab 4r in your binder, please,

1 Dr. Armstrong.

2 Now, did you attend a meeting of the Producer
3 Committee for Animal Welfare on December 7 and 8, 2004, in
4 Chicago?

5 A. Yes.

6 Q. And is this document at Tab 4, which is marked as
7 Plaintiffs' Exhibit 260, a copy of the minutes of that meeting
8 that you attended?

9 A. Yes.

10 MS. SUMNER: Your Honor, I'd like to move at this
11 time for the admission of Plaintiffs' Exhibit 260 into
12 evidence.

13 MR. BLECHMAN: Your Honor, Plaintiffs have no
14 objection.

15 THE COURT: 260 is admitted.

16 (Exhibit received in evidence.)

17 MS. SUMNER: May I publish it to the jury?

18 THE COURT: Yes, you may.

19 BY MS. SUMNER:

20 Q. Dr. Armstrong, at this meeting in December of 2004 in
21 Chicago, did you share the Scientific Advisory
22 Committee's views on backfilling with the Producer Committee
23 for Animal Welfare?

24 A. Yes.

25 Q. And if you could look, please, at the first page of these

1 minutes, under the heading Backfilling, do you see that?

2 A. Yes.

3 Q. Does that first paragraph accurately summarize what you
4 told the Producer Committee at this meeting?

5 A. Yes. And that represented a normal back and forth. I
6 met with the Producer Committee earlier, then we had a
7 conference call with the Scientific Committee, and then I
8 reported back.

9 Q. And can you explain to the jury, please, what views of
10 the Scientific Advisory Committee were communicated at this
11 time?

12 A. Yeah, the producers had said, you know, we've got surplus
13 pullets. So the pullets are the young hens ready to --

14 MR. BLECHMAN: Excuse me, Your Honor. I think we're
15 about to hear hearsay.

16 THE COURT: Well, the -- I think the question is:
17 What views of the Scientific Advisory Committee were
18 communicated at this time?

19 Do you want to at least rephrase the question?

20 BY MS. SUMNER:

21 Q. Yes, if you could stick, Dr. Armstrong, to the
22 committee's views.

23 A. So the committee discussed is it appropriate for
24 unexpected surplus of pullets to be used in backfilling to
25 replace mortality and we said no.

1 Q. And were you asked at this meeting about the Scientific
2 Advisory Committee's views on whether backfilling would be
3 acceptable if a catastrophic event occurred?

4 A. Yes.

5 Q. And what did you understand the catastrophic event to be?

6 A. You have a really serious outbreak of cannibalism or
7 malfunction or something that caused the big increase in
8 mortality, not a monthly event, a single event, that was
9 viewed as catastrophic.

10 Q. And did you take that exception, so to speak, back to the
11 Scientific Advisory Committee?

12 A. Yes.

13 Q. And what were the Scientific Advisory Committee's views
14 on that exception?

15 A. They were comfortable with that. It had some pros and
16 cons, but like anything else, it was more of a wholistic
17 balance and in a catastrophic situation, there needed to be a
18 way to move forward and continue to produce eggs.

19 Q. Did anyone ever tell you that the ban on backfilling was
20 needed to reduce the nation's flock size or the
21 nation's supply of eggs?

22 A. No.

23 Q. Did you ever discuss with UEP the impact that the
24 practice of backfilling was having on egg supply or egg price?

25 A. No.

1 Q. In 2004, when the Scientific Advisory Committee
2 recommended that backfilling be eliminated, were you aware
3 that Al Pope had written an editorial on backfilling?

4 A. I really don't recall. I received United Voices and
5 didn't read anything that came across.

6 Q. Let's turn now to the section of the guidelines that
7 deals with handling and slaughter and that is on page 18. It
8 begins on page 18.

9 MR. BLECHMAN: Excuse me, Counsel. Which document
10 are you referring to?

11 MS. SUMNER: We're back to Tab 1e, the
12 recommendations, Plaintiffs' Exhibit 52.

13 MR. BLECHMAN: Thank you.

14 BY MS. SUMNER:

15 Q. Dr. Armstrong, can you explain for the jury what a spent
16 hen is?

17 A. So at the end of the first laying cycle or the end of the
18 second or third after molting, the hen is no longer viable for
19 producing eggs. Typically the shells get so the brittle that
20 they can't even move through the system. So the hen's useful
21 lifetime is over. So at some point, you know, we use animals.
22 They have to be harvested or euthanized.

23 Q. Is there consensus as to exactly when a hen becomes
24 spent?

25 A. I think from a commercial perspective there is. I think

1 from an animal welfare perspective, that might be not be such
2 a consensus, but a practical consensus, when their ability to
3 lay viable eggs has ended.

4 Q. And does it depend in part on whether or not the flock is
5 molted?

6 A. Yes, because if you molt, you can get additional laying
7 cycles from individual hens.

8 Q. You can turn to page 20 of these recommendations to the
9 specific recommendation on handling transportation and
10 slaughter.

11 Can you explain briefly what the Scientific Advisory
12 Committee recommended with respect to slaughter, specifically?

13 A. Well, throughout all of the handling and transportation,
14 there's an aspect of training, treating the animals with care,
15 providing adequate food up until the point, but I -- I don't
16 see the exact number where we're talking about slaughtering.

17 Q. Maybe Number 12?

18 A. Oh, down at the bottom. Yeah, thank you. And we talk
19 about training and that's on farm euthanasia. So what
20 happened over time is that the market for a spent hen to go
21 into the food chain, either for humans or for other uses
22 dropped such that the value of a bird was not viable to
23 transport them. So producers developed ways to euthanize the
24 birds on the premises and appropriately do that.

25 So we talked about training, we talked about

1 cervical dislocation as a way to euthanize small numbers, and
2 an MAK cart is one where they use a gas to basically euthanize
3 the numbers of birds in a cart. And then we also said we
4 really need to evaluate new technologies for euthanasia to
5 make sure that they are welfare friendly. And so we're
6 ending -- as I mentioned before, we're using the birds, we
7 terminate their life, but that should be done in the most
8 humane way possible.

9 Q. What role, if any, did the egg producers' economics play
10 in the Scientific Advisory Committee's recommendations that
11 were issued in September of 2000?

12 A. From a broad perspective, again, we looked at the
13 affordability, the practicality, but we really looked at the
14 science-based guidelines. And in the case of what we just
15 talked about, we're looking at how can that be done from a
16 science-based perspective without respect as to why the bird
17 was being euthanized.

18 Q. Did the committee have a view on guidelines that would be
19 too expensive or impossible for the industry to implement?

20 A. Well, yes. There's a lot of examples where, for example,
21 molting, we didn't feel it was practical to eliminate feed
22 withdrawal as a molt immediately. So we came up with
23 guidelines to make it as humane as possible, but we needed the
24 research to get to the point and we did.

25 We also knew that birds were not in a good situation

1 being at 48, and they needed to be at 67 square inches, but we
2 couldn't snap our fingers and make that happen overnight. So
3 we put the recommendations in place. We had no influence on
4 the timing, and we discussed that upfront, that it was not our
5 role to get into the timing of any recommendations that we
6 make. Now, we did intervene when we saw there was -- when we
7 would find an animal welfare issue that was very blatant, as
8 some examples already have been given.

9 Q. Was it important to the committee that the guidelines not
10 be too expensive or impossible to implement?

11 A. Well, yes. If they were impractical, we're really not
12 going to affect the welfare of birds. And if you look what
13 happened over time, the industry had proposed 12 years to
14 phase in the space because of the market, because of pressure
15 of FMI, NCCR, McDonald's, Burger King. That was produced to
16 six years. We didn't have anything to do with the timeline of
17 getting to that space. That was not our role.

18 Q. In your view, did the conservative approach of focusing
19 on mortality and productivity make the recommendations more
20 likely to be implemented?

21 A. Yes. Absolutely.

22 Q. Now, did the Scientific Advisory Committee do its work on
23 these recommendations in isolation?

24 A. Oh, no.

25 Q. Can you explain to the jury how not?

1 A. Well, first of all, we -- we had a UEP representative,
2 Gene Gregory, and we had a producer representative, and that
3 changed over time. We also had different members of the
4 committee that had experience in commercial. We had some
5 members of the committee -- Paul Thompson had no experience
6 with birds. He was there from the ethics and public
7 perception perspective.

8 We all also were members of different departments
9 and colleges and we interacted with individuals. The members
10 were actively doing research and publishing in these areas.
11 So nothing happened in a vacuum, but -- but when we say we're
12 independent, we were scientifically independent, in that we
13 based our guidelines on what we knew at the time and in some
14 cases that evolved.

15 Q. Did the Scientific Advisory Committee have interaction
16 with FMI and NCCR during this process?

17 A. Yes. We heard very strong signals from FMI early on that
18 we would like for each animal sector, broilers, pork, laying
19 hens, have one uniform set of guidelines. And, in fact, FMI
20 formed a group and Adele Douglass, Janice Swanson, and Joy
21 Mench became members of that group. So we had a lot of back
22 and forth and knew what was going on.

23 Q. Now, from time to time, did you attend UEP meetings?

24 A. Yes.

25 Q. And did those include UEP board meetings?

1 A. Yes.

2 Q. And UEP committee meetings as well?

3 A. Yes.

4 Q. Were the nation's flock size or eggs supply or egg price
5 discussed in those meetings?

6 A. Well, they discussed a wide range of topics, yes.

7 Q. And did you receive UEP's newsletter, United Voices?

8 A. Yes.

9 Q. And did you read it?

10 A. I'd scan it and I'd particularly read the animal welfare
11 materials, but inboxes of e-mail get pretty full.

12 Q. Did it contain articles that discussed the nation's flock
13 size and egg supply and egg prices?

14 A. I'm sure it did.

15 Q. Did the Scientific Advisory Committee ever consider those
16 issues when making its initial recommendations?

17 A. Absolutely not. And as I've said before, if anything had
18 been pre-ordained or someone trying to push our committee in
19 any one direction, not based on animal welfare or wholistic
20 view of animal welfare, the committee would have disbanded.
21 And that committee that was founded in 1999 is still active
22 today with some of the same members still on that committee.
23 That is extremely very -- that's positive.

24 Q. Did any of those issues ever influence the
25 recommendations that the Scientific Advisory Committee made at

1 any time?

2 A. No.

3 Q. Did anyone from UEP ever ask the Scientific Advisory
4 Committee to consider those issues when making its
5 recommendations?

6 A. No.

7 Q. Did anyone from UEP ever tell you that the reason UEP
8 wanted to implement Animal Welfare Guidelines was to manage
9 the nation's flock size?

10 A. No.

11 Q. Or to manage the nation's egg supply?

12 A. No.

13 Q. Or to impact the egg price in the U.S.?

14 A. No. And, in fact, why would they have been backfilling?
15 Because backfilling was a way to keep egg production up. So
16 that really doesn't make sense to me.

17 Q. Did UEP and its members take steps to make use of the
18 Scientific Advisory Committee recommendations?

19 A. Yes.

20 Q. What did they do?

21 A. Well, first, they formed a producer Animal Welfare
22 Committee, which we encouraged because other groups which I
23 was involved, there would be producers and scientists in the
24 same room, and there would be equal numbers and a lot of push
25 for status quo. So we had our Scientific Committee that

1 didn't operate in a vacuum, we had the Producer Committee and
2 then they took our recommendations and guidelines and put them
3 into Producer Guidelines and then they also then developed an
4 audit program.

5 Q. Do you recall, Dr. Armstrong, who sat on the Producers
6 Committee for Animal Welfare?

7 A. Oh, there was a range of individuals, Barrie Wilcox, Bob
8 Krouse, Mark Oldenkamp for many years, Paul Bahan were some of
9 them, were the chairs, but there were a lot of different
10 producers on the committee.

11 Q. Do you recall whether any representative from Rose Acre
12 Farms sat on or participated in the Producer Committee?

13 A. Oh, I'm sure they did, but I don't recall.

14 Q. Was Garth Sparboe active on the Producers Committee?

15 A. I think he was originally.

16 Q. And who did Garth Sparboe represent on that committee?

17 A. Sparboe Farms.

18 Q. And did you form an impression of Sparboe Farms' interest
19 in implementing Animal Welfare Guidelines?

20 A. Yes.

21 MR. BLECHMAN: Excuse me, Your Honor, objection.
22 Foundation.

23 MS. SUMNER: He testified he attended the meetings.

24 THE COURT: Well, it may be -- may or may not relate
25 to an interest in implementing the guidelines. Do you want to

1 rephrase your question?

2 BY MS. SUMNER:

3 Q. At the Producer Committee meetings, did you gain an
4 understanding as to various producers' interest in the Animal
5 Welfare Guidelines as a result of the discussions in which you
6 participated at those meetings?

7 A. Yes.

8 Q. And in particular, did you form an impression of Sparboe
9 Farms' interest in implementing the Animal Welfare Guidelines
10 through your participation and discussion at those meetings?

11 A. Yes.

12 Q. Can you please explain to the jury what impression you
13 formed with respect to Sparboe Farms', in particular, interest
14 in implementing Animal Welfare Guidelines?

15 A. There was -- there was pushback in particular with regard
16 to ammonia levels and space and also just, in general, the
17 science-based guidelines.

18 Q. And did you have a role with respect to the Producers
19 Committee on Animal Welfare?

20 A. Yes, I was liaison from the Scientific Committee.

21 Q. At any of those meetings, did you ever hear anyone
22 discuss the Animal Welfare Guidelines as a means to reduce the
23 nation's flock size or egg supply?

24 A. No.

25 Q. At those meetings, did you ever hear anyone discuss the

1 impact that the guidelines would have on the price of eggs?

2 A. No.

3 Q. Were other members of the Scientific Advisory Committee
4 involved with the Producer Committee for Animal Welfare?

5 A. Yes, from time to time they would join in person, or I
6 would bring them in on a conference call.

7 Q. So you testified earlier that this committee developed
8 guidelines. Are the Scientific Advisory
9 Committee's recommendations and the UEP Guidelines two
10 different documents?

11 A. Yes.

12 Q. Do you recall an issue arising where members of the
13 Scientific Advisory Committee did not want their names on the
14 UEP Guidelines as published?

15 A. Yes.

16 Q. Why is it that you and your colleagues on the Scientific
17 Advisory Committee did not want your names to be listed in the
18 guidelines as published to the industry?

19 A. It was really a very simple issue. As scientists, we're
20 very sensitive about what our names are on, and this was
21 during transition. And so the egg producers were going from
22 48 to 67, they were dealing with ammonia, they were dealing
23 with a lot of issues, that was not -- that's not what we were
24 about. We weren't part of that transition. So we didn't want
25 our names on it. Once everything had transitioned, we put our

1 names back on it. It was a matter of that transition.

2 Q. Do you recall when the Scientific Advisory
3 Committee's view regarding having their names published on the
4 UEP Guidelines changed?

5 A. I don't know, 2008 or 2010.

6 Q. Dr. Armstrong, the jury's heard a lot about Gene Gregory.
7 Can you tell the jury a little bit about your experience with
8 Gene Gregory as it relates to the Producer Committee for
9 Animal Welfare, as well as Mr. Gregory's participation on the
10 Scientific Advisory Committee?

11 A. Yeah. I have a lot of interactions with Gene for many,
12 many years, and Gene deeply cared about the industry, and Gene
13 deeply cared about science-based guidelines, but he didn't
14 always understand the science. So there would be frequent
15 back and forth with the scientists, but then there would also
16 be frequent back and forth with producers. And Gene didn't
17 have much of a filter and he sometimes was an equal
18 opportunity offender. And he and Joy Mench would go
19 toe-to-toe on things. And today, I don't know if they see
20 each other since Gene's retired, but before Gene retired they
21 were very good friends, because it's just the dynamics of
22 Gene's personality. But he deeply -- he deeply cared about
23 the animal welfare issue and -- now when we first went on that
24 tour it would have been easy to take us to a facility that was
25 not 48 square inches with ammonia that made you cry and manure

1 dropping on the birds, and it was really illustrative of the
2 industry at that time. And so I believe that, you know, Gene
3 indeed cared about animal welfare, and the science, but as
4 much as he understood the science.

5 Q. I'd like you to turn, Dr. Armstrong, please, to Tab 5 in
6 your binder. This is a document that is mark as Defendants'
7 Exhibit 175.

8 MS. SUMNER: This document is already in evidence.
9 May I publish it to the jury?

10 THE COURT: Yes.

11 BY MS. SUMNER:

12 Q. Dr. Armstrong, do you recognize this document?

13 A. Yes.

14 Q. Can you tell the jury what it is, please.

15 A. This is the Animal Husbandry Guidelines for the U.S.
16 laying flock, and I don't remember if it's the first or
17 second, but it's 2002 edition and so this is the translation
18 of the committee of our work to the industry.

19 Q. So just to be clear, these are the UEP Guidelines?

20 A. These are UEP Guidelines.

21 Q. Generally, were there some differences between the
22 Scientific Advisory Committee's September 2000 recommendations
23 and the UEP Guidelines?

24 A. Yes. There were some differences, largely due to A, a
25 transition; B, not understanding what, you know, what we know

1 and what we don't know, the research. And those were the
2 two -- the two main reasons. But the industry accepted our
3 guidelines in principle in 2000 and then they worked through,
4 how do we transition to get to that point.

5 Q. So did the Scientific Advisory
6 Committee's recommendations provide a time period for
7 implementation of the guidelines?

8 A. We did not.

9 Q. Did the UEP Guidelines provide a time period for
10 implementation?

11 A. Yes, they did.

12 Q. Did the Scientific Advisory Committee recommendations
13 provide for an audit program?

14 A. No. We anticipated there would be one but we -- we
15 didn't think about it at the beginning. We anticipated that
16 there would be later, but we did not recommend that at the
17 beginning.

18 Q. And did the UEP Guidelines contain an audit?

19 A. Oh, yes. And there were many groups, FMI, NCCR,
20 McDonald's, Burger King calling, and they set up their own,
21 some of them set up their own.

22 Q. Did the Scientific Advisory Committee's recommendations
23 provide any provisions or recommendations for certification of
24 producers who complied with the recommendations?

25 A. No.

1 Q. Did the UEP Guidelines?

2 A. Yes.

3 Q. And what is your understanding of the reason for these
4 differences?

5 A. Well, again, we provided the science basis for what
6 should happen, and the industry, they're dealing with the
7 customers, and the customers were demanding, well, if you have
8 guidelines, how do you prove it? And customers were saying,
9 we want to know. Shareholders were saying we want to know.

10 MR. BLECHMAN: Excuse me, Your Honor, we're getting
11 hearsay without foundation. So if we're going to have the
12 kind of testimony, we request the foundation, please.

13 THE COURT: Well, the question is: What is your
14 understanding of the reason of these differences?

15 So from that standpoint.

16 MR. BLECHMAN: I can deal with this on cross. I'm
17 hearing about customers and things --

18 THE COURT: Okay. Okay, I've got it.

19 MR. BLECHMAN: Thank you.

20 MS. SUMNER: You can continue, Dr. Armstrong.

21 THE WITNESS: Oh, I think I made my point.

22 BY MS. SUMNER:

23 Q. Did the egg producers implement the full minimum cage
24 space recommendations in the guidelines immediately?

25 A. No.

1 Q. Do you have an understanding as to why not?

2 A. It wasn't practical.

3 Q. Did you and the Scientific Advisory Committee want the
4 producers to implement the minimum cage space requirements
5 sooner?

6 A. Oh, from the -- from the Scientific Committee
7 perspective, from the individual bird perspective, yes, we
8 would have wanted that, but we also had to deal with what was
9 practical.

10 Q. And do you recall what the initial phase-in period for
11 the minimum cage space requirements was in the guidelines?

12 A. I believe it was 12 years, originally.

13 Q. And was that shortened?

14 A. Yes, it was shortened to half that, six years.

15 Q. And do you have an understanding as to why?

16 A. Dynamics of the industry, consumer -- I'm not sure, but
17 they wanted to move it sooner.

18 Q. Now, we've heard some testimony during this case about
19 something called the house average rule. Do you have an
20 understanding of what that is?

21 A. Yes.

22 Q. Can you explain that to the jury.

23 A. Well, as they were transitioning from 48 to 67, it wasn't
24 feasible to just get the full house, even to whatever their
25 phase-in, and we just viewed it as a transition. We viewed it

1 as movement in the right direction and a transition. So we
2 weren't too concerned about house averaging.

3 Q. So how can a rule involving averaging be part of a
4 welfare program?

5 A. Because they're transitioning, and they're -- they're --
6 we're trying to get at what's best for the individual birds,
7 what's best for the flock from a science-based perspective.
8 But, again, we did not get into the timeline, and so we viewed
9 that as a transition.

10 Q. Was it important to the Scientific Advisory Committee
11 that there be an end date for the transition?

12 A. Yes, I think they felt -- well, it's one thing for the
13 industry to say in 2000, we -- we agree, we're going to live
14 with science, but then if they just kept putting it off, then
15 that would have been shallow. So by putting the end date on
16 space, which was one of the biggest issues, that said to us
17 that they're serious about it.

18 Q. So how did the Scientific Advisory Committee feel about
19 the transition period adopted in the UEP Guidelines?

20 A. We -- you know, we had interactions and back and forth,
21 but overall, we were comfortable with the transition.

22 MS. SUMNER: Your Honor, I'm getting ready to move
23 into another line of questioning that might take a while.

24 THE COURT: Okay, then I think the jury might be
25 ready to move into lunch. So we will take an hour lunch

1 break, folks. Back here at 1:30 to resume. And as you might
2 recall, I said we're going to end the day around 3:30-ish.
3 Closer to 3:30 than four, probably. So enjoy lunch. The same
4 rules apply. Don't talk about the case. And we will be back
5 here in an hour.

6 THE DEPUTY CLERK: All rise.

7 (Jury out.)

8 THE COURT: After lunch, about how long?

9 MS. SUMNER: At least another hour.

10 THE COURT: Okay. I just want to know. All right,
11 enjoy lunch, everybody.

12 MR. BLECHMAN: Thank you, Your Honor.

13 MR. LEVINE: Thank you, Your Honor.

14 THE COURT: See you in an hour.

15 (Luncheon recess taken.)

16 (After luncheon recess:)

17 THE DEPUTY CLERK: All rise.

18 THE COURT: Okay, ready to resume.

19 MR. BLECHMAN: Yes, Your Honor.

20 (Witness resumes the stand.)

21 THE DEPUTY CLERK: All rise.

22 (Jury in.)

23 THE COURT: All right. Everybody, you may take your
24 seats.

25 And, Ms. Sumner, you may resume.

1 MS. SUMNER: Thank you.

2 BY MS. SUMNER:

3 Q. Dr. Armstrong, before the lunch break, we were discussing
4 the documents that's at Tab 105 of your binder. This is the
5 copy of the UEP Animal Husbandry Guidelines For U.S.
6 Egg-Laying Flocks, 2002 edition. If you could turn to that,
7 and at the same time have handy the document that's behind
8 Tab 1 in your binder, you might actually just want to take it
9 out of the binder for ease of reference or at least have it
10 available to flip back and forth.

11 These are the Scientific Advisory Committee's
12 September 2000 recommendations, and we were discussing the
13 differences between the two and I just would like to discuss a
14 few specifics.

15 To start, if you could turn to page 5 of the 2002
16 guidelines, these are the recommendations on housing and space
17 allowance.

18 A. Yes.

19 Q. Are you there?

20 A. Yes.

21 Q. And I'd like to discuss the differences with respect to
22 cage space. So if I could direct your attention to the second
23 guideline, which reads: All hens should be able to stand
24 comfortably upright in their cage. The slope of the cage
25 floor should not exceed 8 degrees.

1 Do you see that?

2 A. Yes.

3 Q. So the guidelines required that hens be able to stand in
4 their cage but didn't include the 16- to 17-inch specific
5 number. And if you could just take a look at the
6 recommendation of the Scientific Advisory Committee on this
7 same issue, and can you -- do you have an understanding as to
8 why the guidelines did not include the 16 to 17 inches?

9 A. Yes. The main part of our guidelines said that hens
10 should be able to stand comfortably upright in their cage
11 without having their hens protruding in the cage above, and
12 then we said a cage height of 16 to 18 inches will generally
13 be acceptable and while larger strains would require more. So
14 we were comfortable with the performance standard in not
15 mentioning 16 to 17.

16 Q. And do you have an understanding as to why the producer
17 guidelines did not include the specific language that a cage
18 height of 16 to 17 inches will generally be acceptable?

19 A. Well, it would be very, very hard to audit with the slope
20 of the floor, with the different strains of birds, with the
21 different cage configurations, and so it was much better to
22 realistically stick with the performance standard, as I
23 recall.

24 Q. Now, I'd like to direct your attention in this same set
25 of recommendations in the 2002 guidelines to the one on feeder

1 space which is at -- at Number 4.

2 A. Um-hum.

3 Q. And then I would like you to take a look at the
4 Scientific Advisory Guidelines recommendation on feeder space
5 which is at page 10 of the recommendations, also Number 4.

6 A. Um-hum.

7 Q. And can you explain to the jury what is the difference
8 between the two?

9 A. Yeah, the committee at that time believed the best
10 information we had possible is that birds should have 4 inches
11 of linear space in order to be able to eat properly. The
12 producers just kept pushing back and did not implement that
13 and there was a back and forth, back and forth. So there was
14 a difference of opinion with regard to this temporary
15 difference of opinion with regard to this guideline.

16 Q. So how did the Scientific Advisory Committee feel about
17 this guideline recommendation in 2002?

18 A. We felt it should be 4 inches per bird.

19 Q. And did you have an understanding as to why the producers
20 drafted the guideline this way at that time?

21 A. They -- and I guess in 2002, they were already -- some
22 people were already implementing more space, and they weren't
23 seeing a problem in the field and we can't base guidelines on
24 the field. We have to -- on commercial observations, we have
25 to stick with the science, and so there was a difference in

1 what they were observing, I think, and what we were
2 recommending.

3 Q. And did the Scientific Advisory Committee's view on this
4 producer guideline change at some point in time?

5 A. Yes, it did.

6 Q. And how did it change?

7 A. Well, we asked the UEP to fund a study conducted at
8 Purdue University and it involved different -- the same
9 genetics but a genetic that was used by a lot of the industry,
10 a white bird. And they looked at different feeder space, they
11 looked at different cage configuration, and they video'd the
12 birds and watched their behavior, and they found that the
13 bird's behavior, they would eat asynchronously. There was not
14 any evidence of negative animal welfare, and there was no
15 evidence of egg production or feed consumption. So these
16 birds started to eat asynchronously. So the recommendation
17 was then changed after that research -- after that research
18 study.

19 Q. And what was the recommendation changed to?

20 A. To a performance standard so that birds could have
21 sufficient space to consume the food.

22 Q. And at that point in time, was the recommendation
23 consistent with the guideline?

24 A. Yes. Yeah, in the end analysis, all our guidelines lined
25 up. During the transition there were some differences.

1 Q. Do you recall when that change in recommendation was made
2 with respect to feeder space?

3 A. 2006, I think. It was discussed a lot in '05, '04, but I
4 think the study was done in '06, but there's a lot of dates in
5 my head.

6 Q. Let's discuss the air quality recommendation next. If
7 you could turn to page 6 of the producer guidelines --

8 A. Yes.

9 Q. -- recommendation Number 7, and then compare that to the
10 2002 recommendation on air quality, which is found at page 11,
11 Item Number 9.

12 Could you explain to the jury, please, what the
13 difference was between the Scientific Advisory Committee's air
14 quality recommendation and the 2002 producer guideline with
15 respect to air quality?

16 A. So the Producer Committee strove for ideally less than 25
17 and should not exceed 50 parts per million, and we had said it
18 should ideally be less than ten parts per million and should
19 not exceed 25 parts per million.

20 Q. And that's with respect to ammonia?

21 A. That was the major difference with respect to ammonia.

22 MR. BLECHMAN: Excuse me, Counsel. If we could just
23 have a better cite to the page that we're dealing with. I'm
24 just not seeing a Number 9 on the page that we're looking at,
25 and I may very well be looking at the incorrect page.

1 MS. SUMNER: We're looking at page 11 in Plaintiffs'
2 Exhibit 52.

3 MR. BLECHMAN: 2002?

4 MS. SUMNER: Number 52 is the 2000 Scientific
5 Advisory Committee recommendations.

6 MR. BLECHMAN: Got it.

7 MS. SUMNER: Are you there?

8 MR. BLECHMAN: I got confused because I thought you
9 said 2002 before.

10 Thank you, Your Honor. Excuse me.

11 BY MS. SUMNER:

12 Q. Do you have an understanding as to why the producers
13 varied from the Scientific Advisory Committee's 2000
14 recommendation on ammonia?

15 A. Yeah, the ability to reduce ammonia was significantly
16 related to the type of housing and these A-frame houses where
17 the manure was left in the building, and so just like space,
18 we knew that it would take time. So the committee -- we
19 discussed this and the committee was comfortable with this as
20 a transition.

21 We were also aware of some new facilities being
22 built in operation at that time with belts and others, some of
23 which were McDonald's, some were others, that consistently had
24 ammonia less than ten. So there were clearly new facilities
25 in the future that would be no problem less than ten. So it

1 was, again, a transitional type of thing that just
2 practicality had to come into play.

3 Q. Did the producer guideline change over time?

4 A. Yes.

5 Q. And at some point, did it fully align with the Scientific
6 Advisory Committee's original recommendation?

7 A. Yes.

8 Q. And do you recall when that was?

9 A. '8 or '10, 2008 or 2010.

10 Q. Let's talk next about beak trimming. If you could turn,
11 Dr. Armstrong, please, to page 7 in the 2002 guidelines, and
12 compare that with page 6 of the 2000 Scientific Advisory
13 Committee recommendations.

14 A. Okay.

15 Q. Did the producers include a specific guideline requiring
16 the selection of a more docile bird strain?

17 A. No.

18 Q. Do you have an understanding as to why they did not?

19 A. Absolutely. That's very aspirational and takes many
20 generations of birds to impact that. Once the breeders of the
21 birds decide to do it, and they're pushed to select birds for
22 a lot of different things. Egg production, all sorts of
23 things. So it was an aspirational goal, not a practical item
24 to be put in Animal Welfare Guidelines at the level of the
25 commercial operation.

1 Q. Other than the Scientific Advisory Committee
2 recommendation regarding the more docile bird strain, did the
3 producers adopt in this 2002 version the Scientific Advisory
4 Committee's recommendations with respect to beak trimming?

5 A. Yes.

6 Q. And how did the Scientific Advisory Committee feel about
7 the Producers' Guidelines with respect to beak trimming in
8 2002?

9 A. Very positive.

10 Q. And did the scientific research regarding the selection
11 or the possibility of breeding a more docile strain that
12 didn't need beak trimming change after 2002?

13 A. Not that I'm aware.

14 Q. If you could focus next on the lighting Guideline.
15 That's found on page 6 of the 2002 Producer Guidelines, Item
16 Number 8, and compare that, please, Dr. Armstrong, to the
17 Scientific Advisory Committee's recommendation found on
18 page 11.

19 A. Yes.

20 Q. And could you explain to the jury if there is a
21 difference between these recommendation and guideline?

22 A. They're identical except for our sentence that discusses
23 light intensity and flocks should average .5 to 1 foot-candle
24 for all birds at all feeding levels.

25 Q. And did that difference concern the Scientific Advisory

1 Committee?

2 A. Not that I recall at this time.

3 Q. Do you recall why not?

4 A. Because if you're going to inspect the birds and you're
5 going to be able to see the birds, that light will be there.

6 And so again, it's a performance standard, and you really
7 can't inspect the birds if you're not within that range. And
8 that's what we were after, inspecting the birds, being able to
9 see a mortality or a sick bird.

10 Q. Next I'd like you to turn to page 14 in the 2002 Producer
11 Guidelines. And this page is entitled Compliance, and then
12 under Compliance, there are a couple of paragraphs and a
13 provision for an audit. Do you see that?

14 A. Yes.

15 Q. Did the Scientific Advisory Committee's recommendations
16 in September of 2002 include a provision for an audit?

17 A. No.

18 Q. Why not?

19 A. Well, that wasn't part of our purview. Individual
20 members of the committee worked with auditing companies. So
21 they used experts, but our committee, that was not our role.
22 Our role was not to get into timing, to tell them when to do
23 something and we were very supportive of the audit and we
24 would comment on an audit if some major issue became an animal
25 welfare concern.

1 Q. Did the Scientific Advisory Committee have a view on
2 whether there should be an audit?

3 A. Oh, we were all very much in favor, and once we got
4 started and with a lot of discussion in the entire food chain,
5 it was very clear that the system needed audits and really
6 demanded audits.

7 Q. When you say, It was very clear that the system needed
8 and demanded audits, what do you mean?

9 A. Well, for example, I mentioned that Bob Langert from
10 McDonald's was at the October 1999 meeting.

11 MR. BLECHMAN: Excuse me, Your Honor. Excuse me,
12 Your Honor, this sounds like we're about to hear hearsay.

13 THE COURT: Are you making an anticipatory
14 objection?

15 MR. BLECHMAN: I'm objecting on the basis of hearsay
16 based on what the -- the witness's testimony.

17 THE COURT: Are you asking him?

18 MS. SUMNER: I'm asking him for his understanding
19 and if that understanding is based on something someone told
20 him, I think he's allowed to explain that to the jury. It's
21 not really being offered for the truth of what was told to
22 him, but rather to show his state of mind and understanding at
23 the time.

24 THE COURT: Okay, with that explanation, which, of
25 course, is very standard, I'm going to overrule the objection

1 which was on the way to being made.

2 THE WITNESS: And so I interacted with McDonald's.
3 I served on their Advisory Board Committee. Members of our
4 committee served on multiple groups, so it was very clear that
5 Walmart and others who I met with in the past wanted auditing.

6 BY MS. SUMNER:

7 Q. From time to time, did the Scientific Advisory Committee
8 discuss the audit with UEP?

9 A. Yes, we did.

10 Q. And did the Scientific Advisory Committee have an
11 understanding at some point that violations of certain
12 guidelines would result in an automatic fail?

13 A. Yes, we did.

14 Q. And did the Scientific Advisory Committee have an
15 understanding that among those automatic fail provisions were
16 100 percent compliance with cage space, backfilling, and
17 feed-withdrawal molting?

18 A. Yes.

19 Q. What was the Scientific Advisory Committee's view on
20 those automatic fail provisions?

21 A. Well, it was also, once it was phased in the space
22 allowance, we felt they were really clearly detrimental to
23 animal welfare if the answer was not yes. Or in the case of
24 feed-withdrawal molting, if you're doing feed withdrawal,
25 removing feed, that is a significant animal welfare situation.

1 So all four of those have significant individual animal
2 welfare consequences.

3 Q. Did the Scientific Advisory Committee also have an
4 understanding that producers could lose points for not
5 complying with certain provisions of the guideline and still
6 pass the audit?

7 A. Yes, we did.

8 Q. And what was the Scientific Advisory Committee's view on
9 that?

10 A. Well, they understood that, again, we were in a
11 transition in the case of ammonia, in the case of house
12 averaging, those types of things, but once we got to a final
13 end point it was much more clear. And you also look at bird
14 feed consumption, you look at bird -- how much they're
15 producing. If ammonia is very high it will impact the bird.
16 So they were comfortable with it. And as I mentioned, several
17 of the members, independent of their work with UEP, were
18 involved with the different audit groups because audit groups
19 always -- they talked with the animal welfare community and it
20 was a small community.

21 Q. Now, on this same page, below the audit, in the 2002
22 Producer Guidelines, there's a provision for certification.
23 Do you see that?

24 A. Yes.

25 Q. Did the Scientific Advisory Committee recommendations

1 include a provision for a certified program?

2 A. No.

3 Q. Why not?

4 A. That wasn't a part of our purview. We focused on
5 science-based guidelines.

6 Q. And did the Scientific Advisory Committee understand that
7 the producers included provisions for a certification program
8 in their guidelines?

9 A. Yes, the Scientific Committee, for the most part,
10 understood that a certification program was a natural outcome
11 of an audit, or could be.

12 Q. Now, Dr. Armstrong, I'd like you to turn to Tab 6 in your
13 binder, please.

14 A. Yes.

15 Q. And do you recognize this document?

16 A. Yes.

17 Q. What is this?

18 A. It's the 2005 version of the Animal Husbandry Guidelines
19 for UEP and it includes the UEP Certified Program.

20 Q. And were you still chair of the Scientific Advisory
21 Committee in 2005?

22 A. Yes.

23 Q. And is this a document that you were familiar with at
24 that time?

25 A. Yes.

1 MS. SUMNER: Your Honor, I'd like to move for the
2 admission of Defendants' Exhibit 180 into evidence.

3 MR. BLECHMAN: Plaintiffs have no objection.

4 THE COURT: 180 is admitted.

5 (Exhibit received in evidence.)

6 MS. SUMNER: May I publish to the jury, please?

7 THE COURT: Yes.

8 BY MS. SUMNER:

9 Q. Dr. Armstrong, did the 2005 edition of the UEP Producer
10 Guidelines address backfilling?

11 A. Yes.

12 Q. And how did these guidelines address backfilling?

13 A. We -- we had recommended that backfilling not be allowed,
14 so their guidelines reflected that.

15 Q. So was the guideline on backfilling that's included in
16 this 2005 edition of the UEP Guidelines consistent with the
17 Scientific Advisory Committee's recommendation on backfilling
18 as of 2005?

19 A. Yes.

20 Q. I'd like you to turn to page 11 of these 2005 Guidelines
21 as well. And molting is addressed on this page, correct?

22 A. Yes.

23 Q. Did the 2005 Guidelines address molting effective
24 January 1, 2006?

25 A. Yes.

1 Q. And how so?

2 A. Well, effective January 1, 2006, only nonfeed-withdrawal
3 molt methods would be permitted, and that was after the
4 research had been conducted and we knew that it was practical.

5 Q. So as of January 1, 2006, the guidelines banned
6 feed-withdrawal molting?

7 A. Yes.

8 Q. And was that consistent with the Scientific Advisory
9 Committee's recommendation on molting at that time?

10 A. Yes.

11 Q. You can put that to the side, Dr. Armstrong.

12 How did you feel about the UEP Producer Guidelines?

13 A. I think the committee and I, and we discussed this, felt
14 good about the entire process and we felt that -- and I made
15 many public statements that UEP was really ahead of the rest
16 of animal agriculture in being proactive in accepting science
17 and making changes. So the committee overall felt very good,
18 and I think they still do to this day.

19 Q. Did you believe that they improved animal welfare?

20 A. Oh, no question. I mean, mortality dropped
21 significantly, per hen production increased, manure was no
22 longer dropping on birds, ammonia levels -- you could walk
23 into a barn and not tear up. It definitely impacted animal
24 welfare for individual hens.

25 Q. Did you believe that they set a baseline or minimum for

1 the humane treatment of egg-laying hens?

2 A. Yes, I did, and we particularly pointed that out after,
3 you know, the transition was coming to a close, and it became
4 apparent that some did not believe that that was a minimum and
5 they didn't need to be at that minimum and that really caused
6 the committee to react to that as well.

7 Q. And who were those who had that view?

8 A. Well, a large part of it was the breaker industry, the
9 fluid eggs don't have as direct a customer, and it was also
10 consistent with the same producers that were pushing back at
11 the very beginning. And that even to this day, I've had
12 producers say if the customer does not demand the UEP
13 guidelines then we should still be able to produce at 48
14 square inches. And our view today is that not following the
15 minimum guidelines with cages is not humane for the hen.

16 Q. Did you raise that issue with McDonald's at any point in
17 time?

18 A. I did. As I served on McDonald's panel, I had individual
19 conversations with Bob Langert and I was very blunt. I said,
20 Could you imagine a 60 Minutes story where they're looking at
21 your production facility in Michigan, it's very -- very
22 amazing, less than ten parts per million ammonia, and then you
23 flash forward to the liquid side and you see birds that are at
24 48 or less square inches, manure dropping on them or just the
25 birds not in the same animal welfare condition, how would that

1 be viewed? And that was part of it, public perception.

2 Q. And did McDonald's do anything after you had that
3 discussion with Bob Langert?

4 A. Well, McDonald's, their guidelines evolved all along.
5 When they first announced their guidelines, it was right after
6 we had used 72, they said 72, they also immediately, oh, set a
7 date for no longer using a feed-withdrawal molt. And over
8 time the number of providers to McDonald's decreased from over
9 two dozen to down to about three, because they had to be able
10 to adapt those guidelines and be able to produce eggs
11 according to those guidelines.

12 Q. Do you have an understanding as to whether McDonald's
13 requires its eggs that are used for breaking or egg products
14 to be produced in accordance with Animal Welfare Guidelines?

15 A. Oh, yes, they do, and McDonald's has also announced that
16 all their eggs in the future will be cage-free, which means a
17 aviary where you may have a thousand birds in a very, very
18 large cage. And they actually participated in a study with
19 Cargill looking at different types of housing and the
20 difference -- the differences.

21 Q. Now, in this 2002 and forward time period, did you
22 continue interacting with retailers and others who purchased
23 eggs?

24 A. Yes, I did.

25 Q. What was your impression of their response to the

1 guidelines?

2 A. Well, my impression is that people were very positive
3 about the program, and would love to see others follow suit.
4 In fact, there's efforts going on right now in the pork
5 industry to have a universal audit instead of multiple audits
6 so they only have one. So people like uniformity, something
7 they can measure to make sure that things are done properly.

8 Q. Did some farmers decide not to implement the guidelines
9 on their egg production?

10 A. Yes. Yes. First of all, being a member of UEP is not
11 required, and no, a producer does not have to use the UEP
12 Program. If they do and they want to participate, then they
13 follow the guidelines.

14 Q. But was the program voluntary?

15 A. Not for UEP members, I don't think. But we viewed it as
16 a -- we viewed it as setting up the science-based guidelines.
17 We didn't really worry about, again, the timeline and
18 everything beyond that.

19 Q. Did UEP members have to implement the guidelines on their
20 production?

21 A. Yes.

22 Q. Are you sure about that, Dr. Armstrong?

23 A. No.

24 Q. Okay.

25 A. But, I mean, I'm not - I'm not on a day-to-day basis, but

1 UEP, if they don't want to do it, they don't have to be a UEP
2 member. So UEP is not a mandatory membership organization. I
3 do know that.

4 Q. Did the 2002 guidelines or any other edition of the
5 UEP Guidelines restrict in any way egg farmers' ability to
6 expand their operations?

7 A. Not that I'm aware of, but I'm not an expert in that
8 field.

9 Q. Once the Certified Program was rolled out, what became of
10 the Scientific Advisory Committee?

11 A. Oh, we continued to work. We then set about developing
12 guidelines for noncage, and so we wanted to do that because it
13 was 98 percent cage; a few years later, it's 95 percent. It's
14 probably about 90 percent. In 2008 California passed a
15 referendum that said basically plain cages wouldn't work, and
16 in 2018, they've now said clearly noncage. So a lot of
17 different states changed in that regard.

18 That's another driver that was happening in multiple
19 states, the activists were working state by state to try to
20 get voters to vote against cages, gestation crates, various
21 animal welfare. That was very active.

22 Q. Did the Scientific Advisory Committee continue to meet?

23 A. Yes, we continued to meet. When I left the committee in
24 2011, Scotti Hester became chair. She retired and I believe
25 Joy Mench is now chair of the committee.

1 Q. And did the committee continue to do further animal
2 research to further animal welfare?

3 A. Yes.

4 Q. Were the guidelines and the UEP Certified Program
5 designed to evolve and improve over time?

6 A. Oh, absolutely. The feeder space, the methods to induce
7 a molt with nonfeed withdrawal, and then the future, being
8 able to change the sex of the baby chicks when they're born,
9 because right now half the chicks are born male, half are born
10 female, and the male chicks are disposed. So if a scientist
11 could develop a way to have all female chicks, that would be a
12 very positive animal welfare perspective from a broad area.
13 So there's a lot of research going on.

14 Q. Are you familiar with something called the 100% rule?

15 A. Yes.

16 Q. And was the 100% rule included in the Scientific Advisory
17 Committee's 2000 recommendations?

18 A. No.

19 Q. Why not?

20 A. We anticipated that if UEP supported the guidelines as
21 the board did very early on in 2000 in principal, they voted
22 to accept the guidelines, that those guidelines were for all
23 laying hens with regard to UEP. We never anticipated that it
24 wouldn't be.

25 Q. Did you and the members of the Scientific Advisory

1 Committee believe that the 100% rule was necessary?

2 A. Absolutely.

3 Q. Why?

4 A. Because we did not believe it was humane for hens to be
5 housed in those same conditions that we observed on our tour
6 late in the last century, and we felt if we were going to be
7 involved with science-based guidelines and evolving
8 science-based guidelines, that it needed to be for all -- all
9 hens. And I am very confident our committee would have walked
10 and would have disbanded. They felt very strongly about that.
11 They felt very strongly about all the areas, and that's why
12 we're very proud that there was consistent agreement with UEP
13 and the science over the long haul.

14 Q. In January 2006, was that the Scientific Advisory
15 Committee's view on the 100% rule?

16 A. Yes, that's about the time.

17 Q. And did the Scientific Advisory Committee believe that
18 science-based guidelines developed by the Scientific Advisory
19 Committee and accepted by UEP should be viewed as minimum
20 standards?

21 A. Yes.

22 Q. Did you believe that it was essential that egg production
23 and cages follow science-based guidelines?

24 A. Yes. I believe that for several reasons. One is that I
25 felt that the cage or an enriched cage which has a perch and a

1 nest box, I felt that was the most welfare-friendly, most
2 holistic way to produce eggs, and if we did not implement the
3 minimum in cages, that that would be lost. And it's probably
4 lost now.

5 In California it's now noncage. And in a noncage
6 operation, two times as many birds die that is in an enriched
7 cage or a cage system. And what's happened is the view of
8 being able to exhibit natural behaviors is a bigger issue than
9 whether the bird dies or not, and that's where public
10 perception -- McDonald's made that decision, for example, and
11 they had research data showing all the aspects that we just
12 talked about, and Europe has a big influence on that as well.
13 The EU banned cages several years ago.

14 Q. Did the Scientific Advisory Committee in 2006 believe it
15 was critical that all hens be managed using science-based
16 guidelines?

17 A. Yes.

18 Q. And did the Scientific Advisory Committee at that time
19 believe that the failure to adhere to the minimum guidelines
20 would be inconsistent with the humane treatment of hens?

21 A. Yes.

22 Q. And did you believe that treating all hens consistent
23 with the minimum space guidelines was the right thing to do?

24 A. Absolutely.

25 Q. And did the Scientific Advisory Committee have a strong

1 opinion that if industry failed to adhere to those minimum
2 guidelines, the Government would impose stricter mandatory
3 guidelines or ban cages altogether?

4 A. Yes.

5 Q. And did the Scientific Advisory Committee view it as
6 inappropriate to produce eggs in a manner inconsistent with
7 the minimum guidelines?

8 A. Yes.

9 Q. Did the Scientific Advisory Committee believe at that
10 time that UEP had adopted the Scientific Advisory
11 Committee's core recommendations?

12 A. Yes.

13 Q. And did you give notice to UEP in January 2006 of those
14 views?

15 A. I did.

16 Q. How did you give notice to UEP?

17 A. I sent several communications to UEP and anything that I
18 would send was always reviewed by the committee and whether I
19 signed it or everyone signed it, it was the voice of the
20 committee. And so we laid out in no uncertain terms our view
21 on the 100% rule. We also addressed, as we discussed earlier,
22 backfilling. And we were very clear about it.

23 Q. Dr. Armstrong, I'd like you to take a look at the
24 document that is behind Tab 7 in your binder. And
25 specifically the document that's at pages 3, 4, and -- I guess

1 3 through 7 of that document. It's a document that's been
2 marked as Defendants' Exhibit 382.

3 A. Yes.

4 Q. And my question is: Is this the communication in which
5 you gave notice in January 2006 to UEP of the Scientific
6 Advisory Committee's views that we just discussed?

7 A. Yes.

8 MS. SUMNER: Your Honor, I'd like to offer
9 Defendants' Exhibit 382 into evidence.

10 MR. BLECHMAN: Your Honor, Plaintiffs object.

11 THE COURT: Well, are you focusing, Ms. Sumner, on
12 only that part of the exhibit that starts at page 3 --

13 MS. SUMNER: Um.

14 THE COURT: -- of the composite?

15 MS. SUMNER: I think that and the bottom e-mail,
16 which is the second e-mail in the chain which actually shows
17 the transmission of the document. So it starts on the very
18 bottom of page 1. It's dated Friday, January 20, 2006, at
19 9:00 a.m.

20 THE COURT: It's the first, fourth and fifth of
21 page 1 --

22 MS. SUMNER: Yes.

23 THE COURT: -- that you're not offering.

24 MS. SUMNER: We would be amenable to having this
25 moved into evidence in the redacted form. There was a request

1 for that.

2 THE COURT: How about a ruling?

3 MS. SUMNER: Or a ruling. That works.

4 THE COURT: Mr. Blechman, is your objection really
5 only to the -- the top four-fifths or five-sixths of the first
6 page?

7 MR. BLECHMAN: It is, Your Honor.

8 THE COURT: Okay, so there is no objection to 382
9 starting at the bottom inch and a half of the first page
10 through the end of the exhibit, which is at MFI0361839. I'm
11 really sorry about that numbers business, but it just works
12 for this community. All right?

13 MS. SUMNER: Yes.

14 THE COURT: So if it's going to be published, if
15 you're going to ask for any kind of a publication, we have to
16 be careful that not the first page of this is taken care of,
17 right?

18 MS. SUMNER: May we publish it in redacted form as
19 Your Honor just described?

20 THE COURT: If that's possible.

21 MS. SUMNER: It is possible. We came prepared.

22 THE COURT: Okay. Well, then, why offer the whole
23 thing?

24 MS. SUMNER: Just testing the waters.

25 THE COURT: Roll them.

1 BY MS. SUMNER:

2 Q. Dr. Armstrong, if we could look at page 3 of this
3 document, please.

4 A. Mine's not numbered. So is that like 1835 down in the
5 bottom right corner?

6 Q. Yes, it is 1835, exactly. And I'd like you to
7 specifically focus on the first paragraph, which notes: This
8 communication is provided on behalf of the Scientific Advisory
9 Committee. Is that correct?

10 A. Um-hum. Yes. That's correct.

11 Q. And then I'd like you to turn to the next page which is
12 the one that ends in 836. It's page 4 of the exhibit.

13 A. Um-hum.

14 Q. And focus on the first full paragraph there.

15 Is this the paragraph in which you gave notice to
16 UEP of the Scientific Advisory Committee's view that failure
17 to adhere to the Scientific Advisory Committee's minimum
18 guidelines is not consistent with the humane treatment of
19 laying hens?

20 A. Yes.

21 Q. And then I'd like to focus your attention on the first
22 bullet at the bottom of the page there, the same page.

23 A. Yes.

24 Q. And is this where you communicated to UEP the Scientific
25 Advisory Committee's belief that the UEP board has accepted

1 the Scientific Advisory Committee's core recommendations in
2 2000 and that while the recommendations have been refined over
3 time, those core recommendations and their acceptance by UEP
4 have not changed?

5 A. Yes. And that's what I related several times today. The
6 core recommendations were accepted early on.

7 Q. So we just covered -- you can put that document to the
8 side -- how you informed UEP in January 2006 that the
9 Scientific Advisory Committee believed that the Animal Welfare
10 Guidelines should apply to all hens.

11 Did you believe that UEP was committed to the
12 Scientific Advisory Committee's science-based recommendations?

13 A. Yes. We believed that for the most part, but we felt
14 there were animal activists as well as some members that were
15 pushing back.

16 Q. And did there come a time when you learned that others in
17 the egg industry were attempting to develop a program that was
18 based upon the Scientific Advisory Committee's recommendations
19 but among other differences would not apply to 100 percent of
20 a farmer's hens?

21 A. Yes.

22 Q. And was this an alternative program using the USDA
23 Process Verified seal?

24 A. Yes.

25 Q. Will you understand what I mean if I refer to that

1 program as the PVP program?

2 A. Yes.

3 Q. Did you have an understanding at the time who was
4 spearheading the approach for that competing program?

5 A. Yes.

6 Q. And who -- what was your understanding?

7 A. Garth Sparboe.

8 Q. Did you and the Scientific Advisory Committee oppose this
9 approach?

10 A. Yes.

11 Q. Why?

12 A. Because for the same reason, the 100% rule, the same
13 reason for backfilling that we felt Animal Welfare Guidelines
14 were a science-based conservative minimum and not a marketing
15 tool. Of course you would use it to let people know that your
16 birds were treated well, but we felt that that minimum level
17 was a very conservative minimum level.

18 Q. Did you believe that such a program would threaten the
19 credibility of the science-based guidelines that you helped
20 develop for UEP?

21 A. We believed that it threatened the credibility of the
22 science-based guidelines and also threatened the history of --
23 over the long haul.

24 Q. Was it the Scientific Advisory Committee's belief that
25 any program approved by either UEP or the USDA should require

1 100 percent implementation and apply to all hens?

2 A. Yes, the committee was unanimous in that.

3 Q. And did you give notice of your thoughts to UEP?

4 A. Multiple times.

5 Q. Okay. And how did you do that?

6 A. Well, first verbally and then various letters. I can't
7 remember -- recall the number, but we stated our opinion on a
8 number of occasions.

9 Q. Dr. Armstrong, I'd like you to turn to Tab 8 in your
10 binder. This is Defendants' Exhibit 690.

11 Is this a letter in which you gave notice to UEP of
12 the beliefs we just discussed?

13 A. Yes.

14 MS. SUMNER: And, Your Honor, I'd like to offer
15 Defendants' 690 into evidence at this time.

16 MR. BLECHMAN: Your Honor, we have no objection.

17 THE COURT: 690's admitted.

18 (Exhibit received in evidence.)

19 MS. SUMNER: May I publish it to the jury?

20 THE COURT: Yes.

21 BY MS. SUMNER:

22 Q. Dr. Armstrong, are the views expressed in this letter
23 those of the Scientific Advisory Committee as well as your
24 own?

25 A. Yes.

1 Q. I'd like to direct your attention to the second full
2 paragraph on page 2, which starts with the words: It has come
3 to our attention.

4 A. Yes.

5 Q. Is this where you expressed the Scientific Advisory
6 Committee's opposition to a PVP program that resulted in fewer
7 than 100 percent of hens being subject to science-based
8 guidelines?

9 A. Yes, in this case, we were objecting to the PVP program,
10 but we were opposed to that in any situation with UEP.

11 Q. And can you read to the jury what you wrote to UEP in
12 that paragraph, please.

13 A. It has come to our attention that individuals within the
14 industry are attempting to develop a program that would use
15 the USDA Process Verified seal but result in less than 100
16 percent of the hens subject to science-based guidelines. In
17 other words, a given producer or company would not be required
18 to maintain all hens under science-based guidelines. We are
19 adamantly opposed to this approach. We view the UEP
20 Guidelines as grounded in sound science that represents the
21 threshold for maintaining caged layers humanely. Housing hens
22 at less than UEP minimum standards is neither scientifically
23 justified nor humane. Consequently, we believe any producer
24 or company marketing eggs bearing either the UEP Certified or
25 USDA Process Verified seal is making a statement about the

1 company and the care provided to 100 percent of the hens, not
2 just a few.

3 Q. Thank you, Dr. Armstrong. I'd like you to focus on the
4 next paragraph that begins with: It is our collective and
5 firm belief.

6 Do you see that?

7 A. Yes.

8 Q. Is this where you explained further to UEP why the
9 Scientific Advisory Committee opposed this approach of a
10 program that would not apply to 100 percent of egg-laying
11 hens?

12 A. Yes, we stated that, number one, it threatens the welfare
13 of laying hens, and, also, it threatens overall credibility of
14 our science-based guidelines.

15 The other thing that I want everybody to be aware of
16 is, most -- most of us worked at land-grant universities that
17 had a strong connection with USDA. So that is another --
18 United States Department of Agriculture. So we were also
19 concerned about the credibility of the USDA. Which we are
20 also connected with from a university perspective.

21 Q. Now, at any time, did anyone ever ask you or the
22 Scientific Advisory Committee to reject the PVP because of its
23 potential impact on flock size or egg supply?

24 A. No, and that was never discussed by the committee.

25 Q. Now, after 2006, did the issue of whether the Animal

1 Welfare Guidelines should apply to all hens continue to be an
2 ongoing issue for the egg industry?

3 A. I don't remember for how long, but we kept -- I don't
4 remember for how long, but it didn't go away quickly.

5 Q. By 2008, had the Scientific Advisory Committee's views on
6 the 100% rule changed?

7 A. No.

8 Q. Now, just to clarify a point about this PVP program and
9 other alternatives, were you or the Scientific Advisory
10 Committee opposed to other independent groups coming out with
11 guidelines for egg-laying hens?

12 A. No. In fact, when we developed the noncage guidelines,
13 we were very much consistent and looked at the American
14 Humane, and there were other programs, and, again, it's a
15 small community of scientists, some of the same scientists
16 were on those different groups. So there was consistency.

17 Q. Did the Scientific Advisory Committee believe that any
18 science-based guidelines should be transparent?

19 A. Absolutely.

20 Q. How did the Scientific Advisory Committee feel about a
21 program that claimed to be scientifically based but would not
22 disclose its guidelines?

23 A. Well, we -- we said in the letter, while both seals
24 represent marketing programs, you know, it's one thing to
25 market process verified, but yet, here's other birds that are

1 not being treated humanely, that is -- we felt that would be
2 disingenuous.

3 Q. Would a program that claimed to be scientifically based
4 but did not disclose its guidelines, wouldn't make them
5 available for review, be acceptable to the Scientific Advisory
6 Committee?

7 A. Our committee members would never be part of something
8 like that.

9 Q. Why not?

10 A. Because openness and transparency is important as part of
11 science, peer review, and we were trying to influence the rest
12 of animal agriculture. We -- we cared dearly about animal
13 welfare and we felt strongly and supported the animal
14 industry, but we knew there were changes that needed to be
15 made in the laying hen industry and other animal industries
16 and they needed to be science-driven.

17 Q. In or about August 2008, did you, again, give notice to
18 UEP of your beliefs that the guidelines should apply to 100
19 percent of hens and that any guidelines should be both
20 scientifically based and transparent?

21 A. That sounds about right.

22 Q. And how did you give that notice?

23 A. Probably in a letter. And again, we sent several letters
24 regarding multiple topics.

25 Q. I'd like you, Dr. Armstrong, to turn to the document

1 that's behind Tab 9 in your binder. This is Defendants'
2 Exhibit 709. And is this the letter in which you gave notice
3 to UEP of the beliefs we just discussed?

4 A. Yes, August 2, 2008.

5 MS. SUMNER: Your Honor, I'd like to offer
6 Defendants' Exhibit 709 into evidence.

7 MR. BLECHMAN: No objection, Your Honor.

8 THE COURT: 709 is admitted.

9 (Exhibit received in evidence.)

10 MS. SUMNER: May I publish it to the jury?

11 THE COURT: Yes.

12 BY MS. SUMNER:

13 Q. Dr. Armstrong, I'd like to direct your attention to the
14 last paragraph on the first page, the second underlined
15 passage in that paragraph.

16 A. Yes.

17 Q. And first let me ask you, did you write this letter?

18 A. Well, like everything else, I was the primary author of
19 this but the committee members participated and this letter
20 had their full support and likely edits. I don't recall how
21 much, but we firmly supported this letter.

22 Q. And if you look at page 3 of the letter, am I correct
23 that this bears your signature?

24 A. Yes.

25 Q. As well as the other names of the Scientific Advisory

1 Committee members at that time?

2 A. Yes.

3 Q. Going back to the first page, to that second underlined
4 passage, did you underline those sentences before providing
5 this letter to UEP?

6 A. Oh, I remember this. We underlined that as a committee,
7 and then we underlined it and sent it to them to -- underline
8 was to add emphasis.

9 Q. So you emphasized before sending this to UEP that in your
10 view: It was imperative that all hens in noncage or cage
11 systems should receive housing and care that meets or exceeds
12 the minimum science-based guidelines provided by our
13 committee?

14 MR. BLECHMAN: Objection, Your Honor. Leading.

15 THE COURT: It is leading.

16 BY MS. SUMNER:

17 Q. Dr. Armstrong, before you sent this to UEP, did you, in
18 fact, underline and emphasize the sentence that reads: We
19 believe it is imperative that all hens in noncage or cage
20 systems should receive housing and care that meets or exceeds
21 the minimum science-based guidelines provided by our
22 committee?

23 A. Yes. And the committee had been discussing this for at
24 least over a year and a half.

25 Q. Did you ever hear anyone suggest that the 100% rule was

1 the means to produce the nation's flock size or egg supply?

2 A. No.

3 Q. I'd like you to turn to page 10 -- sorry, Tab 10 in your
4 binder. This is Defendants' Exhibit 182, which has already
5 been admitted into evidence.

6 MS. SUMNER: May I publish this to the jury?

7 THE COURT: Yes.

8 BY MS. SUMNER:

9 Q. Do you recognize this document, Dr. Armstrong?

10 A. Yes.

11 Q. And can you tell the jury what this is, please?

12 A. This is the 2007-2008 version of the Producer Animal
13 Husbandry Guidelines for U.S. laying flocks.

14 Q. And were you still the chair of the Scientific Advisory
15 Committee at this time?

16 A. Yes.

17 Q. And were you familiar with this document in the course of
18 your work as chair of the Scientific Advisory Committee?

19 A. Yes.

20 Q. If you could turn, please, Dr. Armstrong, to page 13 of
21 this document. And I'd like you to focus specifically on the
22 seventh guideline there, which is under the Housing and Space
23 Guidelines. Do you see that?

24 A. Yes.

25 Q. And my question is: By 2007, had the producers changed

1 the guideline on ammonia concentration to reflect the
2 Scientific Advisory Committee's original recommendation that
3 ammonia levels be less than ten parts per million ideally and
4 not exceed 25 parts per million?

5 A. Yes.

6 Q. Dr. Armstrong, what relationship, if any, do you have
7 with UEP today?

8 A. None.

9 Q. What relationship, if any, do you have with egg producers
10 today?

11 A. Nothing professional.

12 Q. Did we speak and meet prior to your testimony today?

13 A. Yes.

14 Q. How many times?

15 A. A couple of times.

16 Q. Can you estimate how much time in total we spent?

17 A. Probably ten hours.

18 Q. Did I or anyone else provide you a script for your
19 testimony here today?

20 A. No.

21 Q. And have I or any of the lawyers that you see here
22 representing any of the Defendants or any of the Defendants
23 themselves offered you anything for your testimony here today?

24 A. No.

25 Q. Who paid for your expenses associated with your testimony

1 today?

2 A. No one has yet. I hope it's -- I hope --

3 Q. Do you anticipated that someone will pay for your
4 expenses?

5 A. My expenses will be paid by the law firm, UEP, whomever.

6 Q. Are you here today voluntarily, Dr. Armstrong?

7 A. Yes.

8 Q. And finally, can you please tell the jury why you're here
9 today voluntarily?

10 A. Well, this committee started in 1999, and we're still
11 colleagues and friends, and we all felt deeply about a lot of
12 things happening in animal agriculture and the opportunity to
13 work with the egg industry was very exciting from a
14 professional perspective because it was clear that they were
15 willing to make changes. And they had demonstrated their
16 faith in research based on the cholesterol issue, and we had a
17 good group of people that -- wish it were possible for you to
18 hear from every one of them -- but we firmly believe in what
19 we were doing and very much focused on the science and what we
20 do to try to make life better. So I'm here today because of
21 the credibility of that group of scientists, I'm here today
22 because of the credibility of the Scientific Advisory
23 Committee; just independently, the science side is independent
24 of UEP but it's certainly culled by UEP and we care deeply
25 about that. And if at any time something other than

1 science-based guidelines had come up, I can tell you it
2 wouldn't matter what I would have said, that group would have
3 disbanded without question.

4 MS. SUMNER: May I take a moment to confer with my
5 colleagues?

6 THE COURT: Yes.

7 MS. SUMNER: Okay, thank you very much,
8 Dr. Armstrong, for your testimony. I will pass the witness.

9 THE COURT: Okay. To whom?

10 MS. SUMNER: I think Mr. Blechman.

11 THE COURT: Okay. Well --

12 MS. SUMNER: Right?

13 THE COURT: Do you want -- would you prefer, folks,
14 anybody is going to be questioning?

15 MR. KING: No, Your Honor.

16 MR. HARRIS: No, Your Honor.

17 THE COURT: Whatever you'd want to call it.

18 MR. BLECHMAN: Your Honor, would it be possible to
19 take a brief recess and then I'm ready to go?

20 THE COURT: Yes. Yes.

21 MR. BLECHMAN: Thank you.

22 THE COURT: Under ten minutes, folks, and we're
23 going to break for the day in about an hour. So same rules
24 apply. Come on back promptly.

25 THE DEPUTY CLERK: All rise.

1 (Jury out.)

2 THE COURT: Okay.

3 (After recess:)

4 THE COURT: Everybody comfortable now? Michael, do
5 you want to get our friends?

6 (Witness resumes the stand.)

7 THE DEPUTY CLERK: All rise.

8 (Jury in.)

9 THE COURT: Okay. Thank you, everybody, for coming
10 right on back.

11 Mr. Blechman, you may proceed.

12 MR. BLECHMAN: Thank you, Your Honor.

13 CROSS-EXAMINATION

14 BY MR. BLECHMAN:

15 Q. Dr. Armstrong, you and I have never met, have we?

16 A. No, I don't recall. I don't think so.

17 Q. I can assure you we have not.

18 A. Okay.

19 Q. My name is Bill Blechman, and I represent a number of the
20 Plaintiffs who are in this case and I have -- I have some
21 questions for you. And I want to begin with what I thought I
22 heard you to make as pretty clear declarative, definitive
23 statements, that no one from UEP in your presence discussed
24 cage space allowance and reducing the hen flock supply,
25 correct?

1 A. In the context of the Animal Welfare Committee, the
2 Scientific Animal Welfare Committee, I attended a lot of UEP
3 meetings and I paid attention when I had to. So I -- there
4 may have been a lot of things said in my presence.

5 Q. Right. But I was listening very carefully, and I thought
6 I heard you to say, for example, sir, that at Producer
7 Committee meetings, no one in your presence spoke about cage
8 space allowance and reducing the flock supply. That's your
9 testimony, correct, in substance?

10 A. In substance.

11 Q. In fact -- in fact, your testimony in substance is that
12 had anybody at, say, a Producer Committee meeting talked in
13 your presence about reducing -- about using cage space
14 allowance to reduce the flock size, you'd get up and you'd
15 walk out, right?

16 A. No, sir, that's not what I said.

17 Q. But is that your view? Is that what you would have done?
18 Had anybody talked about that subject in your presence at,
19 say, a Producer Committee meeting, you would have gotten up
20 and walked out, yes or no?

21 A. No, I did not say that. I said that our Scientific
22 Advisory Committee would have walked if there were factors
23 such as that influencing us. I could not tell you what all
24 was stated in front of Producer Committees. And I -- I only
25 know what affected the guidelines and what affected the

1 committee members, and so your characterization of that is not
2 what I meant to portray.

3 Q. I hear you. But you and I are talking different pronouns
4 now, because my question wasn't about generally what does the
5 Scientific Committee do when, in fact, the whole committee
6 doesn't attend Producer Committee meetings, does it?

7 A. No.

8 Q. In fact, you're the liaison between the Scientific
9 Advisory Committee of the UEP and the UEP's Producer
10 Committee. You are the liaison, right?

11 A. That's correct.

12 Q. So you attend these meetings on behalf of the Scientific
13 Advisory Committee, correct?

14 A. That's correct.

15 Q. Not other members of the committee. Let's put aside
16 Mr. Bell and Mr. Gregory, but you as the academic on the
17 committee, you're the guy who's there, right?

18 A. That's correct.

19 Q. Okay. So when I'm asking you questions a moment or two
20 ago about whether you would get up and walk out if anybody in
21 the Producer Committee meeting were to discuss in your
22 presence cage space allowance and reducing the supply of the
23 flock size or eggs, I was talking about you individually, sir.
24 Do you understand that is my question?

25 A. I understand that.

1 Q. And with that understanding in mind, do we have an
2 understanding from your testimony that were the subject matter
3 of cage space allowance and reducing the flock size, where
4 cage space allowance and reducing the egg supply, were that
5 subject to come up, you would get up and you would walk out of
6 the room, true or false?

7 A. That's false.

8 Q. Okay.

9 A. Because --

10 Q. Go ahead.

11 A. If I had felt there was anything of that nature, I would
12 have reported -- of significance, I would have reported back
13 to the Scientific Committee and I can tell you without
14 equivocation, our discussions, I can't -- I can't -- my
15 Scientific Committee and I cannot be held accountable for what
16 producers are saying, but I can tell you what we did and we
17 stuck to the science-based guidelines.

18 Q. Got it.

19 A. And if I had had an accumulation or anything of that
20 nature, I would report back to the committee anything that
21 bothered us, and I don't recall at any time that being at a
22 level where I would go back to the committee and say, hey,
23 they're doing something other than what we had planned.

24 Q. Okay.

25 A. That's what I can tell you.

1 Q. Okay. And I'm going to try to stay specific with the
2 pronoun referring to you as opposed to this Scientific
3 Advisory Committee that doesn't attend Producer Committee
4 meetings, right?

5 A. True.

6 Q. Okay. Is it your testimony, sir, that the subject matter
7 of cage space allowance and reducing the U.S. flock supply or
8 cage space allowance and reducing the U.S. egg supply did not
9 occur in your presence at Producer Committee meetings?

10 A. I cannot tell you it did or did not occur in my presence.
11 I do not recall any situation where I felt it was impinging on
12 our scientific guidelines. If I had, I would have gone back
13 to the committee, and that's the point where they would have
14 walked and I would have walked with them. But I was
15 representing the committee. And I, frankly, paid attention to
16 what I had to, and UEP talked about a lot of things, a lot --
17 hours of meetings.

18 Q. Okay. We're going to get to that. But for the time
19 being, let's say on Producer Committee meetings that you
20 attend and this subject matter of cage space allowance and the
21 reduction of U.S. flock supply or U.S. egg supply, let me show
22 you what has previously been marked as Plaintiffs' Exhibit 44.

23 MR. BLECHMAN: If we can please put that up for the
24 witness and for the Court and counsel and publish it to the
25 jury. It's in evidence.

1 THE WITNESS: Is it possible to have a copy of it?

2 BY MR. BLECHMAN:

3 Q. It is possible, but -- in fact, it's not only possible,
4 but I will deliver like the mail. Sir?

5 A. Thank you.

6 Q. You're welcome.

7 Dr. Armstrong, I've handed you what's been marked as
8 Plaintiffs' Exhibit 44. It is a copy of the UEP Producer
9 Committee for Animal Welfare meeting held on May 15, 2000.

10 Do you have that in front of you?

11 A. I do.

12 Q. Now, you'll notice underneath the call to order, there's
13 three categories, the second of which is consultants.

14 Do you see that?

15 A. Yes.

16 Q. Are you the Dr. Jeff Armstrong who is referred to there
17 as being a person in attendance at this May 15, 2000, Producer
18 Committee meeting?

19 A. I would have been there. I was there.

20 Q. I'm sorry, sir?

21 A. Yes.

22 Q. Okay.

23 MS. SUMNER: May I ask, do you have a copy for us?

24 MR. BLECHMAN: Sure. Bear with me one second. I
25 figured if it was up on the screen, that would be good.

1 MS. SUMNER: Thank you.

2 THE COURT: This is why the computers don't save a
3 single tree.

4 MR. BLECHMAN: I get it. Old habits die hard.

5 BY MR. BLECHMAN:

6 Q. Dr. Armstrong, let me hand you now what has been marked
7 as Plaintiffs' Exhibit 45, which are notes from the UEP Animal
8 Welfare Committee meeting of May 15, 2000.

9 MR. BLECHMAN: This document is in evidence and we
10 would like it published to the jury as well.

11 BY MR. BLECHMAN:

12 Q. Do you have that in front of you?

13 A. Yes, I do.

14 Q. Okay. Dr. Armstrong, you'll note, in these notes of the
15 May 15, 2000, Animal Welfare Committee meeting, the subject
16 matter of the notes is Cage Space Allowance Considerations.
17 Do you see that?

18 A. Yes.

19 Q. All right. And you'll note that in the first paragraph,
20 it refers to the fact that over the last 20 years, the
21 greatest amount of egg income minus feed and pullet cost were
22 derived from the least space allowance in small cages, but the
23 opposite in larger cages.

24 Do you see that?

25 A. Yes.

1 Q. All right. And then if you'll look down in paragraph
2 Number 5, please, on the first page, that paragraph reads:
3 Increasing space allowances would have two major effects.

4 And then small paragraph B reads: An increase in
5 space allowance would inevitably reduce the layer population
6 and thereby reduce the surplus production problems affecting
7 the industry over the past 20 years.

8 Do you see that reference?

9 A. Yes, sir.

10 Q. All right, this was at the May 15, 2000, Producer
11 Committee meeting, correct?

12 A. Yes.

13 Q. All right. And then on the next page, sir --

14 A. Um-hum.

15 Q. -- at the bottom, in paragraph C, as in cowboy,
16 paragraph -- Subparagraph Number 3, under Comments, and I'll
17 just read the beginning and then the subparagraph: Uniform
18 application of minimum space requirements within the U.S.
19 would -- it would reduce the overproduction problem that has
20 plagued the egg industry every three to five years.

21 Do you see that?

22 A. Yes, I do.

23 Q. And that was a comment that was made at the Animal
24 Welfare Producer Committee meeting on May 15, 2000, correct?

25 A. Apparently so, yes.

1 Q. This is a meeting that you attended in person, correct?

2 A. Yes.

3 Q. All right. When these -- when this subject arose at the
4 meeting, did you get up and walk out?

5 A. What I can tell you is Dr. Joy Mench and Dr. Janice
6 Swanson, Donald Bell were also there. I never recall any of
7 our Scientific Committee meetings where we had concerns of
8 what UEP was discussing with regard to flock size and space.

9 I can tell you with Joy and Janice being there, I
10 would remember if they had or we had raised a concern about
11 that. UEP --

12 Q. Dr. Armstrong --

13 A. -- talked about information all the time.

14 Q. Forgive me. If you need to fully answer by saying more,
15 I won't stop you. But my question was pretty simple and
16 straightforward. Did you, sir, get up and walk out when the
17 subject of cage space allowance and reducing the U.S. flock
18 size or cage space allowance and reducing the U.S. supply of
19 eggs came up at this Producer Committee meeting that you
20 attended on May 15, 2000?

21 A. No, I did not get up and walk out, but I can tell you
22 that my reference to walking out has to do with the Scientific
23 Advisory Committee and our meetings. It's a big stretch to
24 put it towards this meeting.

25 Q. I don't understand what you mean by that answer. What do

1 you mean by the reference to the Scientific Advisory
2 Committee?

3 A. What I'm saying is that we made our recommendations based
4 on science, what we knew, and it was up to the industry to put
5 it in place.

6 Q. Did --

7 A. The papers --

8 Q. I'm sorry.

9 A. The research that was done between '71 and '83
10 established the relationships between mortality and
11 productivity per hen. Everybody knew that. Anyone could come
12 up with this. What I can tell you is our group, our
13 science-based group, we weren't affected by that. It's really
14 clear where we had back and forth on guidelines and everything
15 else. So if I had felt the Producer Committee was being
16 nefarious, and using us, I would have told the committee. I
17 never felt that.

18 Q. This isn't the only time, Dr. Armstrong, that someone
19 from the UEP in your presence discussed using cage space
20 allowance to reduce the U.S. egg supply; isn't that true?

21 A. I have no idea. I tell you, I pay attention to my
22 reports, sometimes I leave the room, sometimes I'm in the back
23 of the room. You put this one in front of me and there was
24 Janice Swanson and Joy Mench in there, three of us, and I
25 would recall if my committee members had a concern about that

1 being a driving force for affecting us.

2 Q. I'm talking about you.

3 A. Yes, I don't --

4 Q. And your testimony --

5 A. I do not recall a Producer Committee where I had a
6 concern with regard to their discussions and impacting our
7 guidelines in a manner that I felt badly about.

8 Q. Okay.

9 A. Now, I can't tell you everything that was discussed in
10 those meetings. And we have records. So I -- obviously
11 certain things were discussed.

12 Q. And why are the records important, Dr. Armstrong? You
13 said -- you said, We have records. Why does that matter here?

14 A. Well, the record I look at is the bigger story.

15 Q. No, no, no, I didn't ask you what records you looked at,
16 with all due respect.

17 A. It is records are important --

18 Q. My question -- if I might.

19 A. -- as far as what we did as a science-based committee. I
20 cannot attest to what the Producer Committee was doing other
21 than we dealt with, when there were interactions of the
22 guidelines, how quick you phase in, all of that.

23 Q. The records, would you agree, are the best evidence of
24 what you were thinking of doing at the time, yes?

25 A. No.

1 Q. Well, you just finished telling the jury that we have
2 records, and I took from your comment that the fact that there
3 are records means something. It means that there's a way to
4 verify what people were thinking, what people were doing.
5 Would you agree with that?

6 A. Yeah, the record is a piece of the puzzle.

7 Q. All right.

8 A. But I look at the whole story.

9 Q. And we're going to get to that.

10 A. And the whole story is pretty clear, sir.

11 Q. And we're going to get to that, I promise.

12 A. From the scientist perspective, I know our story has a
13 group of scientists.

14 Q. Let's just stay on this subject just a little bit longer,
15 and then we'll move to another one. Don Bell, remind the jury
16 who -- well, you know what? The jury knows who's Don Bell.

17 You served on the animal welfare -- excuse me, the
18 Scientific Advisory Committee with Mr. Bell from the
19 University of California Davis, right?

20 A. Yes.

21 Q. He was, I think you told the jury, somebody who -- and
22 I'm paraphrasing here -- but basically somebody who knows more
23 about flock production, the relation with price and economics
24 than anybody that you knew in the industry, true?

25 A. He knew a lot about egg production, just about any

1 category.

2 Q. And is there anybody, Dr. Armstrong, who knew more about
3 that subject than Don Bell, in your experience?

4 A. I don't know. I don't --

5 Q. Sitting here right now, you don't know?

6 A. All I know is at that time, the industry viewed Don as a
7 go-to person. That's all I know.

8 Q. Okay, and you viewed him as a go-to person, true?

9 A. Well, Don was an individual who could help us understand,
10 you know, modern production and it was important not just to
11 have animal welfare people on the committee. So we needed
12 people that understood the industry, we needed some industry
13 advice.

14 Q. Is that a yes?

15 A. Yes, we invited Don to be on the committee, yes.

16 Q. All right. And Gene Gregory, we know who Gene Gregory is
17 from the UEP?

18 A. Um-hum. Yes.

19 Q. And he also served on the Science Advisory Committee,
20 correct?

21 A. As an advisor ex officio, yes.

22 Q. Attended meetings with you?

23 A. Yes.

24 Q. Was on phone calls with you?

25 A. Yes. He was very engaged.

1 Q. Excuse me, I'm sorry?

2 A. He was very engaged.

3 Q. Communicated by e-mail?

4 A. And phone.

5 Q. And phone?

6 A. Um-hum.

7 Q. The same for Don Bell, phone?

8 A. I didn't have a lot of phone or e-mail contact with Don
9 Bell. Mainly, my interactions with Don were largely at the
10 committee.

11 Q. Okay. Let's talk about Mr. Gregory then. You testified
12 that -- and I want you to correct me if I'm not remembering
13 this right, but in substance, you testified that in 1997 or
14 1998, Gene Gregory contacted you to explore the possibility of
15 you setting up a Science Advisory Committee, true?

16 A. I think the first contact was Al Pope. I don't recall.

17 Q. All right. At some point in that process did you
18 transition to talking to Mr. Gregory?

19 A. We did start talking to Gene after we started forming the
20 committee, certainly.

21 Q. About how long after you formed the committee did you
22 start talking to Don -- excuse me, Gene Gregory?

23 A. I don't remember. We started talking to Gene fairly
24 soon.

25 Q. Okay.

1 A. So I was engaged with Gene. There's no -- that's clear.

2 Q. And you've given us your impression of Mr. Gregory in the
3 course of your testimony earlier today, correct?

4 A. Yes, but --

5 Q. Okay. That's fine.

6 A. -- a few sentences do not pay Gene justice, but --

7 Q. Fair enough. You spoke with Mr. Gregory frequently?

8 A. Yes.

9 Q. You communicated with Mr. Gregory by e-mail with some
10 regularity?

11 A. Yes. And phone.

12 Q. And phone. Did you meet with him in person -- committee
13 meetings aside, did you meet with him in person to discuss the
14 work of the UEP or your Science Advisory Committee at any
15 time?

16 A. We talked about things one-on-one frequently.

17 Q. Okay, and did your -- your, as you say, frequent talking
18 to Mr. Gregory about UEP matters, and e-mailing with him, and
19 occasionally meeting with him in person, did that begin by
20 January of 1999?

21 A. Somewhere around there.

22 Q. Okay. And then did that pattern of communication and
23 frequency of communication with him then continue over a
24 period of years thereafter?

25 A. Yeah, depending on what was going on and how busy I was,

1 whether we were, you know, having a meeting or not.

2 Q. Including in 1999, yes?

3 A. I do believe so.

4 Q. And in 2000, yes?

5 A. Yes.

6 Q. And in 2001, correct?

7 A. Yes.

8 Q. And in 2002, correct?

9 A. Years thereafter.

10 Q. In 2003, correct?

11 A. Yes.

12 Q. All right. So did Mr. Gregory tell you, prior to July
13 of 1999, that he reached out to Don Bell to ask for some ideas
14 about how to deal with the financial crisis in the egg
15 industry and did he have any ideas how to deal with that?

16 A. I don't recall a discussion.

17 Q. Don't recall that at all?

18 A. I do not.

19 Q. Do you recall Mr. Gregory telling you that on July 2,
20 1999, he, Mr. Gregory, received a document from Mr. Bell that
21 recommended using cage space allowance as a permanent
22 industrywide measure to reduce flock size and egg supply in
23 order to address the financial problems in the egg industry,
24 do you remember that?

25 A. Yeah, Don made a lot of recommendations, I think he may

1 have used 56 square inches, I'm not sure, but Don made a lot
2 of recommendations to the committee, many of whom were
3 discussed a little bit or not very -- not very -- not very
4 much.

5 Q. Okay.

6 A. Because Don was not an animal welfare scientist.

7 Q. But you thought enough of Don Bell to include him on your
8 Science Advisory Committee; isn't that true?

9 A. Yeah, we had a wide range of views, certainly.

10 Q. Okay, so he's somebody whose view you respected,
11 otherwise you wouldn't have invited him to be on your
12 committee, true?

13 A. Yeah, but I think if you asked our committee members what
14 influence Don had on our scientific recommendations that are
15 at core here, he had minimal impact.

16 Q. Well, we'll talk about that --

17 A. Because --

18 Q. I promise we'll get to that.

19 A. Because he's not a behavioral scientist.

20 Q. I understand that.

21 A. And when --

22 Q. Do you know what --

23 A. Let me finish.

24 Q. Of course.

25 A. And when you recommend to me that I didn't even take to

1 the committee that we should remove water as a withdrawal
2 method was an idea stuck way back in time.

3 Q. You said Don Bell is not a behavioral -- what was it not,
4 a behavioral --

5 A. Ethologist.

6 Q. No, you used a different word.

7 A. Behavioral scientist.

8 Q. Forgive me, I don't have the live note.

9 Are you a behavioral scientist?

10 A. I'm a physiologist.

11 Q. Is that -- in other words, the answer to my question is,
12 no, you're not a behavioral scientist?

13 A. That's correct.

14 Q. Okay. Let me show you, if I might, Exhibit --
15 Plaintiffs' Exhibit 23.

16 MR. BLECHMAN: Your Honor, may I approach? Thank
17 you. This document is in evidence and we would request that
18 it be published to the jury.

19 THE COURT: Go ahead.

20 MR. BLECHMAN: Thank you.

21 BY MR. BLECHMAN:

22 Q. Okay. Mr. -- Dr. Armstrong, excuse me, you have
23 Plaintiffs' Exhibit 23 in front of you?

24 A. Yes.

25 Q. All right. This is Don Bell's document to Gene Gregory

1 dated July 2, 1999. And I just -- I just want to orient you,
2 and if you need to take a moment to look at the document, then
3 I'll most surely pause. But I want you to know my intention
4 is to ask you about a few passages on just the last two pages
5 of this document.

6 MS. SUMNER: Objection, Your Honor. Foundation.

7 MR. BLECHMAN: Well, I've got to get there first.

8 THE COURT: Well, what I'm looking at is the cover
9 note here. So I take it there are questions about something
10 more than just the --

11 MR. BLECHMAN: Yes.

12 THE COURT: -- transmittal?

13 MR. BLECHMAN: Yes, Your Honor, I --

14 THE COURT: Well, let's wait and see what the
15 questions are. This is, though, cross-examination, so we'll
16 see what the question is.

17 BY MR. BLECHMAN:

18 Q. I'm just waiting for you to get there.

19 A. No, I'm ready.

20 Q. Okay, last two pages of the document. Have you had a
21 chance to skim it?

22 A. Go ahead and ask, I'll skim it as you ask.

23 Q. Okay.

24 A. One particular section.

25 Q. Okay. My question to you, just a moment or two ago, was

1 with regard to Gene Gregory discussing with you the
2 recommendation that he received on July 2, 1999, from Don
3 Bell, proposing as a permanent solution to the problem of the
4 financial problem of the egg industry, a cage space allowance
5 to reduce the number of hens in cages. And you gave an
6 answer, and it covered different periods of time. I'm asking,
7 sir, whether this document and the passages on page -- page --
8 Bates Number 11, for example, help you in pinpointing in time
9 whether Mr. Gregory spoke with you on that subject in or about
10 July 2, or thereafter, 1999?

11 A. If he did, I don't recall. If Don brought this paper to
12 the committee, I don't recall. And I can tell you, like a lot
13 of recommendations that came from Don, they were listened to,
14 but, again, we did not have discussions in the Scientific
15 Committee about supply or Don's -- I don't even remember if it
16 came up, but we were focused on animal welfare and the
17 science-based guidelines. What does the literature say, not
18 what Don said economic output would be. That, I'm certain.

19 Q. Outside the presence of the Scientific Advisory
20 Committee -- withdrawn.

21 Your last answer was expressing certainty about what
22 was discussed within the Scientific Advisory Committee. So
23 let me ask you a broader question, sir.

24 Outside of the Scientific Advisory Committee, did
25 you have any discussions with Gene Gregory on the subject of

1 cage space allowance to reduce the U.S. flock supply or the
2 U.S. egg supply?

3 A. No, nothing of substance that I remember.

4 Q. Nothing of substance. I don't know what to do with that
5 answer. What do you mean "nothing of substance"?

6 A. I don't recall. I do not recall.

7 Q. So sitting here right now, your sworn testimony is that
8 you have no memory of that?

9 A. I do not recall.

10 Q. Is that a subject matter that you consider in the context
11 of this case that you have now flown to and now are taking the
12 witness stand to testify? Would you consider that to be a
13 somewhat important subject matter?

14 A. If Gene had brought or anyone had brought that up to me
15 of consequence, I would have taken it to the committee and I
16 don't recall it ever happening. Did I receive an e-mail from
17 Don? Did I receive something from Gene? I may have, but I
18 can tell you, that did not affect what we were doing. That's
19 all I can tell you.

20 Q. We'll come back to that. Let's shift gears.

21 Your preparation for your testimony today, you
22 testified in response to Defense Counsel that you met with
23 Defense Counsel for about ten hours before you testified,
24 correct?

25 A. Yeah. With in-person and some phone calls.

1 Q. Okay. In the in-person meeting, when did that occur?

2 A. With counsel?

3 Q. Yes. Yes.

4 A. Earlier this month.

5 Q. Earlier this month?

6 A. Um-hum.

7 Q. How early?

8 A. November.

9 Q. In November, so a few weeks ago?

10 A. Yes.

11 Q. Forgive me for asking, but I actually am a little curious
12 about this. When -- when did you meet with Defense Counsel
13 this month, approximately when?

14 A. I'm a creature of my phone. I'd have to look it up, and
15 I don't have it with me.

16 Q. A week ago --

17 A. If you saw my calendar, it is packed.

18 Q. And I respect that.

19 A. It was close -- really close to the beginning of the
20 month.

21 Q. Okay. Was anyone else in attendance at the meeting
22 besides counsel who questioned you today?

23 A. Whitney.

24 Q. Okay. Was anyone on the phone?

25 A. No.

1 Q. Okay. You said you also had several phone conversations?

2 A. Just with Whitney and Robin.

3 Q. Okay.

4 A. That was it.

5 Q. Have you read any documents before you testified today to
6 refresh your memory of any facts or events about which you've
7 testified?

8 A. I got them on my own computer. I'm an e-mail pack rat,
9 so -- and also electronic, I looked at a lot of things, and I
10 also looked at some things in the past.

11 Q. What things?

12 A. Previous testimony.

13 Q. Anything else?

14 A. No.

15 Q. Okay.

16 THE WITNESS: Your Honor, can I get some water?

17 THE COURT: Oh, sure.

18 Mr. Coyle, can we get some more good Government
19 water?

20 MR. BLECHMAN: Do you know what --

21 THE WITNESS: The tail end of that cold.

22 MR. BLECHMAN: Yeah. I've got it.

23 THE WITNESS: Thank you, sir.

24 MR. BLECHMAN: You're welcome.

25 THE WITNESS: That one, too.

1 MR. BLECHMAN: You got it.

2 THE WITNESS: Thank you, sir.

3 MR. BLECHMAN: You're welcome.

4 BY MR. BLECHMAN:

5 Q. Tell me when you're ready.

6 A. Um-hum.

7 Q. When you met with counsel, did you review any documents?

8 I'm not asking you to tell me which. I'm just asking if you
9 did.

10 A. We reviewed documents from UEP in the past.

11 Q. Okay.

12 A. All right.

13 Q. About how many documents did you review?

14 A. I don't recall. It was, you know, quite a few and I --
15 if you add up what I have on my computer and what I've
16 reviewed myself, I have every PowerPoint I've ever presented,
17 I have all of that.

18 Q. Did you yourself make any notes when you met with counsel
19 with respect to what you reviewed? Did you make any
20 handwritten notes?

21 A. Yeah.

22 Q. A page, two pages? What are we talking?

23 A. Not that many. I'd sit and type and then do other
24 things.

25 Q. When you --

1 A. But I -- yeah, I made some notes.

2 Q. Did you make your notes on your computer or did you
3 handwrite?

4 A. Most of them are handwritten.

5 Q. Okay. Do you have your computer with you? Does it
6 travel with you like most of us?

7 A. Of course.

8 Q. Okay. Dr. Armstrong, you are a university president now,
9 are you not?

10 A. Yes.

11 Q. But you had a past life, did you not?

12 A. Yes.

13 Q. All right. And in your past life, you had a CV or
14 resume?

15 A. Yes.

16 Q. It's a document that generally you prepare, yes?

17 A. Yes.

18 Q. All right.

19 MR. BLECHMAN: May I approach, Your Honor?

20 THE COURT: Yes.

21 BY MR. BLECHMAN:

22 Q. Dr. Armstrong, I have handed you what has been marked as
23 Defendants' Exhibit 700, the first page of which is an e-mail,
24 the most -- the latest of which is from Chad Gregory to Gene
25 Gregory and others, forwarding a resume of Dr. Armstrong, and

1 then there is a curriculum vitae of a Jeffrey Dyer Armstrong
2 contained within?

3 A. Yes.

4 Q. Do you recognize the CV that is contained beginning on
5 the second page of Exhibit 700?

6 A. Yes.

7 Q. All right. And you -- you provided this resume or CV to
8 the UEP at the time, did you not?

9 A. Apparently in reference to the International Egg
10 Commission, I think, but I'm not sure.

11 Q. And from the e-mail, the earliest e-mail on the first
12 page of Exhibit 700, it appears to my eye that you provided it
13 to the UEP on June 22, 2007; is that correct?

14 A. Yes.

15 Q. And you provided this resume to the UEP with an
16 expectation that it was going to the UEP, true?

17 A. It was going to the IEC, yes.

18 Q. But you provided it to the UEP, correct?

19 A. Yes.

20 MR. BLECHMAN: Your Honor, we offer Defendants'
21 Exhibit 700 in evidence.

22 MS. SUMNER: No objection.

23 MR. KING: No objection.

24 THE COURT: Okay, D-700 is admitted.

25 (Exhibit received in evidence.)

1 MR. BLECHMAN: Permission to publish, Your Honor.

2 THE COURT: Yes. Go ahead.

3 MR. BLECHMAN: Thank you.

4 BY MR. BLECHMAN:

5 Q. Dr. Armstrong, let me give you a moment, if you'd like.

6 This is your 2000 -- well, you'll tell me. The e-mail is from
7 2007.

8 Is this your 2007 resume?

9 A. Yes.

10 Q. Okay. Did you prepare it, this document?

11 A. Yes.

12 Q. When?

13 A. Constantly evolving document.

14 Q. When you prepared it, did you endeavor to be accurate?

15 A. I tried.

16 Q. As far as you know, were you?

17 A. I hope so.

18 Q. Did you endeavor --

19 A. To the best of my ability, but, yes.

20 Q. Okay. The resume indicates a number of articles which I
21 want to talk to you about, but I want to ask you a couple of
22 questions about your background first.

23 Have you done any research in the housing conditions
24 of hens? And when I say "have you done research," I want to
25 be really clear what I mean, Dr. Armstrong. I mean you --

1 A. No.

2 Q. -- Dr. Jeffrey Armstrong?

3 A. No.

4 Q. Okay. Have you done any research on the relationship
5 between the space -- cage space for hens and hen welfare?

6 A. No.

7 Q. Have you done any research on how to measure hen welfare?

8 A. No.

9 Q. Have you done any research on back trimming --
10 backfilling -- let's try that again. Backfilling?

11 A. No. No.

12 Q. Have you done any research on beak trimming, which is
13 what I meant to say the first time?

14 A. No.

15 Q. Have you done any research on the relationship between
16 cage space and hen production?

17 A. No.

18 Q. Have you done any research on the relationship between
19 cage space and mortality?

20 A. No.

21 Q. Have you done any research on the ability of hens to be
22 able to sit in 48 inches as opposed to 67 inches?

23 A. No.

24 Q. Have you done any research on feeder space and hen
25 welfare?

1 A. No.

2 Q. Have you done any research on ammonia levels and manure
3 in henhouses?

4 A. No.

5 Q. Have you done any research on methods of slaughtering
6 hens?

7 A. No.

8 Q. Have you done any research on methods of slaughtering
9 hens and hen welfare?

10 A. No.

11 Q. Have you done any research on euthanasia of hens?

12 A. No.

13 Q. Have you done any research on euthanasia and animal
14 welfare of hens?

15 A. No.

16 Q. Have you done any research on the handling of hens?

17 A. No.

18 Q. Have you done any research on the handling of hens and
19 hen welfare, sir?

20 A. No.

21 Q. In the course of your testimony on direct exam, I thought
22 I heard you to say that with regard to feeder space, that the
23 science -- that the standard had shifted from science-based to
24 performance-based.

25 Do you recall in substance that testimony or that

1 subject matter?

2 A. I recall the matter. I don't recall saying it like that.

3 Prescription versus performance is what I said.

4 Q. Okay. I want to stick on performance because --

5 A. Performance --

6 Q. I was looking -- just trying to lay a foundation to get
7 to performance and you've done that for me.

8 A. Sure.

9 Q. Would you please explain what you mean by
10 performance-based in terms of measuring feeder space?

11 A. What you want to achieve is that all hens can eat, and
12 originally we said at the same time and that all hens could
13 stand. So that's a performance standard.

14 A prescriptive standard would be this amount, this
15 amount, or this amount, this amount (indicating).

16 Q. Have you done any research on that, sir?

17 A. Not personally.

18 Q. Okay.

19 A. But members of the committee have done research on
20 everything you mentioned.

21 Q. I appreciate you volunteering that, but I'm asking about
22 whether you have because you are the person who has come into
23 this courtroom and is testifying before this jury.

24 A. That's correct, and all those answers were no.

25 Q. Thank you.

1 A. That's correct.

2 Q. Looking further in your resume --

3 A. Um-hum.

4 Q. -- let me direct your attention to -- it's towards the
5 back. I'll give you an exact page in a moment. Let me try to
6 help find it for you. It's a list of the articles. That's
7 the one I'm looking for.

8 A. Is it the one that you have circled?

9 Q. I don't know. It may be that somebody copied my version,
10 but I'm going to ask you about it anyway.

11 A. Okay.

12 Q. So hold that thought and let's start with what is page --
13 I'll use the D-20, which has publication list, refereed
14 journals and chapters and books.

15 Do you see that?

16 A. Yes, sir.

17 MR. BLECHMAN: Okay, if we can show that to the
18 jury, too.

19 BY MR. BLECHMAN:

20 Q. This as a backdrop, I thought I heard you to testify that
21 peer-reviewed articles are essentially the gold standard in --
22 when it comes to academic publications; is that true?

23 A. Yes. For individuals in an individual area, that is very
24 positive.

25 Q. Okay.

1 A. Yeah. A lot of people's promotion and tenure, a lot of
2 things depend on that.

3 Q. Okay. Now, this is a 2007 resume. I'm telling you that
4 upfront. But the very last page is -- shows 46, a 2000
5 article.

6 Do you see that?

7 A. Yeah.

8 Q. Okay. And so my question is: Have you had any
9 peer-review articles published on the subject of animal
10 welfare since -- since 2000?

11 A. I'm a physiologist. I'm not an ethologist animal welfare
12 scientist.

13 Q. So does that mean the answer to my question is no?

14 A. The answer to the question is no, and I was chair of the
15 committee and brought in the experts. I agree with you, the
16 answer is no.

17 Q. Thank you.

18 A. Yes.

19 Q. Now, because you have my copy of this exhibit, I'm going
20 to ask you --

21 A. You can have it back.

22 Q. That's all right. I'm good. I'm good.

23 So I just -- I have a question that I freely admit
24 to you, Dr. Armstrong, is more curiosity than anything else,
25 but in the context of this case, I indulge you and the Court

1 and the jury just to ask. Article Number 44, let me start.

2 You're a physiologist, right?

3 A. Right.

4 Q. You've got a PhD, right?

5 A. Yeah.

6 Q. Okay. So Article 44 is titled Strategies to Facilitate
7 Collegewide Development of Online Course Materials Using the
8 Worldwide Web.

9 Did I read that correctly?

10 A. Um-hum.

11 Q. Is that a yes?

12 A. That's a yes. I apologize.

13 Q. No, no, no, no worries. The court reporter can only take
14 down the verbal answers.

15 Is this article in Number 44, is this a
16 peer-reviewed article?

17 A. Yes.

18 Q. Okay. Does this have anything to do with animals
19 whatsoever?

20 A. No. And I won't give you a 50-minute classroom answer.

21 Q. Thank you.

22 A. That has to do with teaching.

23 Q. Okay.

24 A. That's an agriculture teaching journal. It's about
25 teaching.

1 Q. Very well, thank --

2 A. And learning.

3 Q. Thank you.

4 THE COURT: For humans?

5 THE WITNESS: For humans. We haven't been able to
6 have chickens to get on the Web yet. I'm sure somebody's
7 working on it, though.

8 BY MR. BLECHMAN:

9 Q. Well, at Disney World, maybe.

10 Let me -- allow me to move to another subject, if I
11 might. Tours of henhouses, you provided testimony in response
12 to direct questions about your prior tours of henhouses?

13 A. Yes.

14 Q. And I'd like us to understand what you're referring to.
15 First, in terms of relative timing, when, approximately, is
16 the first time you ever stepped foot into a henhouse?

17 A. When I was a little kid.

18 Q. And that's fair, because that's how I asked the question.
19 So let's move now to 1997 or so.

20 A. You don't want to hear my snake story? Okay, I'm sorry.

21 Q. I -- I do, but not right now.

22 If we could go, move to 1997, 1998, when you, in
23 substance, were explaining to the jury earlier, that you went
24 on tours of henhouses as part of -- my words, not yours --
25 initiation or orientation into hens and eggs -- laying eggs.

1 Do you recall generally that testimony?

2 A. Yes, sir.

3 Q. All right. Approximately when is the first tour of a
4 henhouse that you made at that time?

5 A. In my career --

6 Q. No, no.

7 A. -- as a professional?

8 Q. I'm sorry, I was --

9 A. I --

10 Q. I will ask the question --

11 A. I apologize.

12 Q. No, that's all right. It's late afternoon and I was
13 probably less than clear in my question.

14 After you were approached by the UEP in about 1997
15 or 1998, you went on tours of henhouses, correct?

16 A. Correct.

17 Q. All right. You went to more than one henhouse on these
18 tours, correct?

19 A. As I recall, it was more than one, I can't remember how
20 many.

21 Q. Ballpark? Can you help us any?

22 A. Two or three.

23 Q. Two or three?

24 A. It wasn't a huge number.

25 Q. Where were they located?

1 A. I think Iowa.

2 Q. Anyplace else?

3 A. I don't recall.

4 Q. So did you -- did you fly to Iowa and then take a tour of
5 some henhouses with the committee?

6 A. We were in a van, um-hum.

7 Q. Okay. But -- so you went out there and then toured some
8 henhouses, correct?

9 A. Yes, wherever we went.

10 Q. What is the name or names of the -- of the companies that
11 owned the henhouses that you toured?

12 A. I really don't recall. I do not recall.

13 Q. Okay. Do you remember -- and you said this was Iowa?

14 A. I think.

15 Q. Okay, that's fine.

16 A. Yeah.

17 Q. No, no, it's fine.

18 A. Yeah.

19 Q. And you were with other members of your committee?

20 A. Yeah. I'm pretty sure everybody was able to go. Maybe
21 not Larry Stanker, but pretty much everybody else.

22 Q. Did you make notes while you were going through the
23 henhouse?

24 A. Um, I don't recall making notes, but I -- I just remember
25 the tour and then we talked about it at our next meeting or

1 when we met at -- after the tour.

2 Q. Okay. Did you take any photographs?

3 A. I don't -- I don't think I did. We didn't have cell
4 phones with cameras then.

5 Q. Okay.

6 A. So I am not - I'm not sure.

7 Q. That's fine. Are there any searing images that you
8 recall from these tours that you took?

9 A. Yeah, yes.

10 Q. Tell us, please.

11 A. You could -- the feeling of ammonia. Birds sticking
12 their heads out of the top of the cage, manure dropping on
13 birds. And just that birds were at about 48 square inches, so
14 it was pretty packed. But that was not my first time in a
15 commercial henhouse.

16 Q. I gather you're referring now to when you were younger?

17 A. No.

18 Q. Oh.

19 A. When I was in North Carolina, NC State.

20 Q. Okay.

21 A. And before I was at Purdue.

22 Q. Okay.

23 A. But it -- but I was not -- I did my research more in pigs
24 and cattle, so it would have been in the same type of thing as
25 a tour.

1 Q. Okay.

2 A. Orientation as a new faculty member, that type of thing.

3 Q. Right. And -- and do you know what the ammonia levels
4 were in the henhouses that you went into where you described
5 your eyes burning and the other sensations that you
6 experienced?

7 A. I don't -- yeah, when I recalled -- when I said having
8 ammonia levels, I have experienced that. I don't remember the
9 ammonia levels that day, but I have experienced personally
10 ammonia levels that were high enough to make you tear up in a
11 house. I honestly don't -- you know, that day, the ammonia
12 levels were pretty high but I don't remember how high, and I
13 don't think anyone took a measurement. I'm pretty sure no one
14 did.

15 Q. Dr. Armstrong, did you visibly see the source or sources
16 of the ammonia -- excuse me -- yeah, withdrawn.

17 Did you see the source or sources of the ammonia
18 causing the -- causing the ammonia that you were smelling?

19 A. Yeah, in that type of production, the manure is not
20 removed on a regular basis, so the manure piles up, so that's
21 the source of the ammonia, by and large. You get some from
22 the fresh feces, but by and large, it's, as I understand it,
23 from the --

24 Q. Okay.

25 A. -- the pile-up of the manure.

1 Q. And let me say upfront, I don't mean to be unreasonably
2 graphic in what I'm about to ask you, but this jury has seen
3 some things. Would you please describe in more detail what
4 you saw and what you mean by the manure piled up. What did
5 you see? Take us in that henhouse with you, please, sir, and
6 describe for us what you saw in that regard.

7 A. As best as I can remember --

8 Q. Yes.

9 A. -- it was a big long pile of manure. I don't know how to
10 get any more graphic than that.

11 Q. Were -- were these individual piles of manure or was it
12 just one enormous pile of manure? And again, I don't mean --
13 I'm going to move on, I don't mean to be --

14 A. I really don't recall.

15 Q. Okay.

16 A. It's been a while.

17 Q. Okay. If hens are exposed to ammonia at levels like you
18 experienced, would you consider that to be inhumane?

19 A. If -- if -- the research shows that --

20 Q. Dr. Armstrong, forgive me. I'm not asking you about the
21 research. We'll get there. My question is simply direct.

22 Did you consider the ammonia levels in the henhouse that you
23 were in, in Iowa in 1997, '98 on these tours, did you consider
24 the ammonia levels to be inhumane for the hens, yes or no?

25 A. I considered the entire situation not to be optimal. I

1 didn't put it in that -- in that -- in those terms at the
2 time. We were on a fact-finding mission. The committee had
3 not really been through our discussions, so I honestly didn't
4 think whether it was humane or inhumane. I felt it was
5 definitely not sustainable. Not sustainable.

6 Q. Okay. I'm now asking you about your review today,
7 though, and so knowing what you know, my question to you, sir,
8 is: Did you consider -- do you consider the ammonia levels in
9 the henhouse that you toured in 1997, '98, to be inhumane to
10 hens, yes or no?

11 A. It depends on the duration, so, I would -- I would not.
12 I didn't think about it at that time --

13 Q. Okay. Let --

14 A. -- as it being humane or not.

15 Q. Let me see if I understand. Are you saying that there's
16 any amount of time -- that there's any duration to a hen being
17 exposed to 100 parts per million of ammonia, let's say, that
18 would determine the difference between it being humane and
19 inhumane?

20 A. Well, that's why we have guidelines. If you look at OSHA
21 guidelines for humans --

22 Q. Dr. Armstrong, please.

23 A. -- it is exposure --

24 Q. Dr. Armstrong?

25 A. I'm addressing it as best I know.

1 Q. I promise I'm going to ask you about OSHA and PPMs and
2 all of that. But I'm asking you a very direct straightforward
3 question. Is knowing what you know about ammonia levels and
4 hens, did you regard -- do you regard the ammonia levels in
5 the henhouse that you toured in 1997, 1998 to be inhumane to
6 hens, yes or no?

7 A. I did not think about it as inhumane at that time. I
8 felt that the entire situation was not sustainable. I am not
9 an expert on ammonia. That's why I relied on the discussion
10 of the committee, not my view.

11 Q. Sitting here today, looking back, Dr. Armstrong, do you
12 regard the ammonia levels in that henhouse that you toured in
13 1997, 1998, to be inhumane to hens --

14 MS. SUMNER: Objection.

15 BY MR. BLECHMAN:

16 Q. -- yes or no?

17 A. I've already answered the question.

18 MS. SUMNER: Asked and answered.

19 THE COURT: Okay. You can move on.

20 MR. BLECHMAN: I'll move on. I'll move on. That's
21 fine.

22 You --

23 Your Honor, I have other subjects, but this next
24 subject is relatively short and then I'll be guided by the
25 Court, of course, but I wanted to just tell you in case you're

1 looking for a time to call for a break.

2 THE COURT: Let's see how short.

3 MR. BLECHMAN: Yes, that's fine. Nothing like that
4 to incentivize me here.

5 BY MR. BLECHMAN:

6 Q. You mentioned in your testimony earlier about consumer
7 studies. Do you recall that testimony?

8 A. We talked about public perception, it was a section of
9 the guidelines where we talked about public perception.

10 Q. You also -- I thought I heard you talk about consumer
11 studies. Do you have knowledge of any consumer studies
12 regarding hen welfare?

13 A. I have knowledge of consumer responses and I have
14 knowledge from what -- you know, that our committee members
15 and others have said, but I have not done direct research on
16 consumer responsiveness to hen welfare. I have anecdotal
17 information and then I relied on the committee.

18 Q. Okay. Approximately when, the year will be fine, did you
19 first receive information about consumer studies regarding
20 animal welfare?

21 A. The Center for Food Integrity has been --

22 Q. The question is approximately when?

23 A. Hmm, I -- I don't know exactly. There's -- there have
24 been studies and we have seen them. I can't tell you the
25 year. I can't tell you the year.

1 Q. Okay.

2 A. I would have to ask Janice Swanson, who was our leading
3 expert in that area.

4 Q. I'm just looking to try to fix in time your testimony on
5 the subject, which is why I was following up.

6 THE COURT: Okay, I'm going to fix in time.

7 MR. BLECHMAN: And, Your Honor, that covers the
8 subject.

9 THE COURT: Okay, well, there we go.

10 So, ladies and gentlemen, as I mentioned, we have to
11 end early today, but we are going to resume straightaway 9:30
12 tomorrow, after whatever celebratory gathering is going to be
13 for you-all in the deliberating room. So once again, same
14 rules at night. Just safe and sound travel, and coming back
15 here. You have indeed been spectacular, so keep your record
16 intact and we'll see you tomorrow.

17 THE DEPUTY CLERK: All rise.

18 (Jury out.)

19 MR. BLECHMAN: Your Honor, we request or reiterate
20 for the witness to not talk to counsel about the testimony.

21 THE COURT: Okay, well, you know, it's interesting
22 because I've not said that to anybody, so I wouldn't want
23 anybody to think I was singling anyone out. But I think that
24 it will be fine.

25 So you just have a nice evening, all right, just